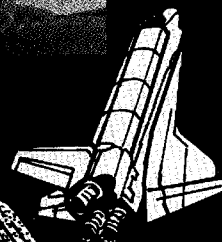
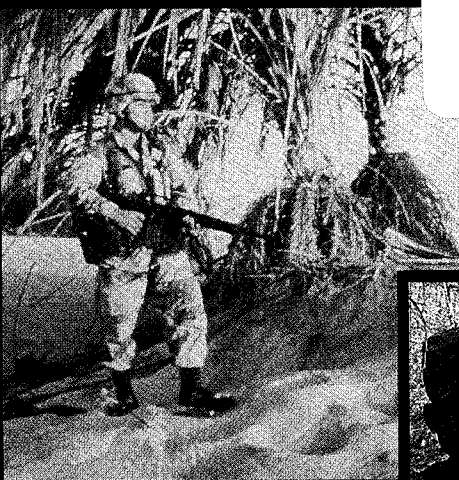


Military Review

The Professional Journal of the United States Army

SEPTEMBER-OCTOBER 1995

19951227 007



DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited

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Middle East • Global Operations • Military Intelligence



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MILITARY REVIEW's Mission is to provide a forum for the open exchange of ideas on military affairs; to focus on concepts, doctrine and warfighting at the tactical and operational levels of war; and to support the education, training, doctrine development and integration missions of the Combined Arms Center and Command and General Staff College.

Professional Bulletin 100-95, **MILITARY REVIEW**, appears bimonthly. This publication presents professional information, but the views expressed herein are those of the authors, not the Department of Defense or its elements. The content does not necessarily reflect the official US Army position and does not change or supersede any information in other official US Army publications. Authors are responsible for the accuracy and source documentation of material they provide. **MILITARY REVIEW** reserves the right to edit material. Basis of official distribution is one per general officer and one per five field grade officers of the Active Army, and one per headquarters (battalion and higher) of the Army National Guard and US Army Reserve. **MILITARY REVIEW** is available on microfilm from University Microfilms, Ann Arbor, MI 48106, and is indexed by the Public Affairs Information Service Bulletin.

MILITARY REVIEW (US ISSN 0026-4148) (USPS 123-830) is published bimonthly for \$14 US/APO/FPO and \$18 foreign addresses per year by the US

Military Review

Headquarters, Department of the Army

Prepared by
US ARMY COMMAND AND GENERAL STAFF COLLEGE
VOLUME LXXV — September–October 1995, NO 5

Professional Bulletin 100-96-B/10

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From the Editor

One of the first things I did upon assuming duties as the *Military Review* editor in chief was to verify just who our audience is and for whom we provide a forum for publication. Some 64 percent of paid subscribers who list rank on their subscription applications are majors and captains. Some 77 percent of our authors are colonels, lieutenant colonels and majors. This cursory statistical analysis confirms what I believed intuitively—that *Military Review* provides a forum for one generation of brigade and battalion commanders and senior staff officers to address the next, sharing experiences and ideas that drive our Army forward and make it the envy of the rest of the world's armies.

My intention is to continue this editorial direction, with perhaps an increased emphasis on originality and ideas. Controversial and thought-provoking articles are welcome! I also intend to publish translations of key articles from our Portuguese and Spanish editions, especially articles with viewpoints that run counter to prevailing US perceptions of the world. I believe that although our readers may not necessarily agree with these viewpoints, they should be aware of them, especially as they prepare to assume duties at higher levels during a time when short-notice, worldwide operational deployments are becoming the norm.

Our lead article this issue is an edited text of an address to the US Army Command and General Staff College Class of 1996 by our chief of staff, General Dennis J. Reimer. The address is directed at our primary readership and provides an opportunity for you—indeed, the entire Army—to read first-hand the chief of staff's initial assessment of our Army and to gain an insight into his command and leadership philosophies. The rest of the issue addresses such seemingly disparate topics as the Middle East, global and military intelligence operations. While the themes may appear somewhat eclectic in nature, the articles reflect our continuing quest for quality in the journal as well as relevance for our readers.

I solicit your feedback concerning *MR*. This publication is "customer-oriented," and if we are not giving our readers what they want and need, I want to know.

RMB

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Fabricated "Jointness"

With increasing frequency, the word *joint* is inserted in a name for credibility. But using the word *joint* does not make something *joint*. Retired US Army Lieutenant General John H. Cushman's article in the March–April 1995 *Military Review*, "Make it *Joint* Force XXI," is no exception. In it, he proposes a future force structure that is, in fact, devoid of "jointness." His Joint Force XXI looks a lot like the 1940 US Army. However, Cushman's orthodox approach to future force design does have institutional and doctrinal foundations.

Force XXI is the Department of the Army's vision of America's 21st-century Army. This Army campaign plan to achieve a 21st-century force emphasizes three main areas. Not surprisingly, the first is Joint Venture—a US Army Training and Doctrine Command initiative coordinated with the Army chief of staff and all major Army commands to decide future Army operational forces' design. The plan's initial focus is division re-engineering. However, this is a *joint* venture conducted by a *single* service that serves as a departure point for the force design Cushman's article recommends.

Cushman's central concept is that future Army maneuver formations will serve as joint task force (JTF) headquarters and should organize, train and equip in peacetime to fulfill this function. Although he consistently fails to cite a reference, US Army Field Manual (FM) 100-7, *Decisive Force: The Army in Theater Operations* (31 May 1995), contains most of his ideas without using his "maneuver disk" concept.

For war operations, FM 100-7 (page 1-8) notes that, "The Army operational-level commander dominates land combat to provide decisive results for the commander in chief (CINC). He is responsible for integrating assigned and supporting joint capabilities effectively." Cushman departs from doctrine when he recommends that corps command-

ers "double-hat" themselves as both corps and JTF commander. FM 100-7 (page 6-13) lists this as an option but stresses the danger of blurring the tactical and operational focus in planning and execution. Cushman wants the "primary of maneuver" to dominate and sees the answer in improved Army-controlled organization and technology.

Cushman has an Army-owned, Army-controlled future vision. He recommends delegating theater CINC authority for theater operations down to corps and lower-level surface maneuver commanders. The maneuver commander would have the command and control (C²) structure to control all forces imbedded in his organization, at the other services' expense. Cushman's "ultimately decisive, yet to be conceived, maneuver formations" are envisioned as "mini-CINCdoms" with a twist. In Cushman's view, you do not have a separate air component because it is unnecessary if the force is properly designed.

If we accept Cushman's rationale at face value, "make it joint" means that current air component functions would be incorporated into the surface maneuver unit's C² structure. For example, air intelligence would be better accomplished by the military intelligence brigade; logistics would be accomplished by the corps support command; and air defense would fall under the deputy commander, although in certain scenarios, it would be placed under fleet operations. This is not a call for jointness. It is a call for the US Air Force to again come under Army control and at the lowest level possible. It is easy to be joint when you reduce the players to land and naval surface maneuver forces.

Cushman's vision is regrettably consistent with current and emerging US joint doctrine. Our joint doctrine supports his contention that the "maneuver component is primary," and that maneuver, by definition, is a surface force capability shared by the land and naval components. Every piece of combat power generated by

functional components—according to joint doctrine—is considered maneuver, *except* Air Force-supplied air power. Since Air Force air power is not maneuver, it follows that it should support and be subservient to maneuver. This leads us to Cushman's vision and the same force structure that went ashore in North Africa in 1942. This is not a progressive concept.

Besides reducing the Air Force to an additional fire support means owned by the surface maneuver commander, Cushman has interesting recommendations for enhancing jointness between the Army and US Marine Corps. His incrementalist approach supports "achieving [Army and Marine Corps] commonality" of "concepts of future operations." These two services should be stationed together to increase interoperability training and operational synchronization opportunities. This would allow soldiers and Marines to look and act more alike. In time, there would be no distinction between the two and, therefore, no rationale for separate services. What a great final advance in jointness; all forces will wear the same uniform—Army Green.

Cushman's future vision is of Army dominance, not joint-force dominance. The problem with his approach is that it is land maneuver force-biased. It deprives the commander of the unique perspectives and capabilities of a true joint force. It limits a force commander to a single force, with a single world view that is singularly restrictive. True jointness causes friction among the services as they compete for missions and funding. It is this competition that gives us the overlapping, but complementary, capabilities that force an enemy to defend everywhere. Cushman's future military force design is an Army-focused force.

We need to "clean up our collective act" on the concept of jointness, which is consistently used to justify service, and even branch, agendas. This is not the US Congress' intent. The more we malign the jointness concept, the

more Congress will mandate how we execute joint operations. The "J" word needs to emanate solely from the joint staff if it is to have meaning.

LTC Carl R. Pivarsky Jr.,
USAF, student, Air War College,
Maxwell AFB, Alabama

A Difference in Levels

While searching for an explanation for Lieutenant Colonel Carl R. Pivarsky Jr.'s surprising critique of my article, I concluded I was at fault. Pivarsky taught "theater air war" at the US Army Command and General Staff College (USACGSC). I failed to make clear to readers of his orientation that my joint force organization treatment is at the *joint task force* (JTF) level, where the units taking and holding ground are ultimately decisive. It is not at the *theater* level, where air power's ability to set conditions for the ultimately decisive use, at tolerable cost, of maneuvering forces comes into play. There, the joint force *air component* commander (JFACC) wields theater air responsive to the joint force commander's guidance.

In my 1993 pamphlet *Thoughts for Joint Commanders*, used by the USACGSC's Department of Joint and Combined Operations, I wrote, "[T]he first order of business [for a theater commander] must almost always be to achieve freedom of air and naval action. Ideally, land forces should not be committed to combat until air supremacy is gained, the enemy's long-range missiles are of little use to him, his command and control is beaten down, his intelligence assets are neutralized and the battlefield is prepared through precision air and artillery attack."

When this condition is reached, or adequately so, there still remains the difficult task to subdue an enemy refusing to give ground. It becomes a combined arms action task, of which air power is a part, aided by deep theater air strikes. The JTF commander is usually a "maneuver formation" commander. He employs well-supported maneuver units (such as battalions) or formations (such as brigades and divisions) to take and hold ground; he directly commands multiple subordinate maneuver formations through his JFACC or theater JFACC link; and directs available air power.

A full discussion of these matters is covered in my pamphlet, which I sent to Pivarsky. On its back cover is a favorable remark on its contents by Lieutenant General Buster C. Glosson, US Air Force (USAF), then deputy chief of staff, Plans and Operations, Headquarters, USAF, having distinguished himself in Operation *Desert Storm's* air employment.

LTG John H. Cushman, USA,
Retired, Annapolis, Maryland

Fighting Deep

Last year, the US Congress established the White Commission to review a wide range of issues on the Armed Forces' roles and missions. An issue under study by the commission was whether each service should maintain a deep-attack capability. I believe the answer to this question is well defined by our national security strategy and joint doctrine. Our Armed Forces need balanced, joint deep-attack assets—including a US Army with a robust, organic deep-strike capability.

Our national military strategy demands that we can win quickly with minimum casualties. Achieving decisive battlefield victory requires generating overwhelming combat power and imposing our will on an enemy from the opening moments of conflict. A powerful premise lies at the foundation of this strategy—the force that locates its opponent first and employs precise, long-range fires before the enemy can effectively reply will dictate the battle terms.

Joint doctrine places great emphasis on conducting simultaneous in-depth attack as the principal means of generating overwhelming combat power. Joint Publication 3-10, *Doctrine for Joint Operations*, emphasizes that depth and simultaneous attack are key characteristics of the American way of war because they provide the means to bewilder an enemy with continuous, simultaneous application of fires across any battlespace. The synergistic effect of these fires hastens the enemy's defeat, offering him no sanctuary or respite.

Today's US Army, Air Force, Navy (and Marine Corps) form a "capability triad," with each service bringing significant contributions to deep operations. Complementary systems are important because they provide the

joint force an assured capacity for conducting in-depth and simultaneous attack. The joint force commander supported by only a single "deep-attack" service is not using all his potential. For example, during the Vietnam War, the United States relied solely on air power to interdict North Vietnam's primary line of communications along the Ho Chi Minh trail. The North Vietnamese developed effective countermeasures, employing a combination of deception, air defense and innovative tactics to avoid the almost continuous bombing along this strategic supply route. The air campaign alone failed to stop the communist flow of supplies to the south. Only a multiservice deep-strike team can attack under all weather conditions, in every operational environment.

To fully exploit the deep-strike capabilities of each service, leaders and planners must view deep attack as a fully integrated joint operation. One proposal before the White Commission suggests placing the fire support coordination line (FSCL) at the maximum range of cannon artillery and employing the FSCL as a de facto boundary, with the Air Force conducting all deep attacks forward of this line. I think this approach is seriously flawed. It unnecessarily divides the battlefield into "bureaucratic" areas of responsibility at the expense of exploiting our full joint potential. Land component commanders, for example, must be able to protect their forces, dominate battlespace and control the tempo of land operations. To accomplish this, they must have the freedom to maneuver and authority to synchronize the entire land battle—close and deep—by directing all fire and maneuver elements in their areas of operation. All land, sea and air component commanders must wield this capability.

The Army's deep-attack capabilities bring an important contribution to the joint force. Army assets include special operations forces, attack aviation and field artillery rocket and missile systems. Properly synchronized and employed, they form a potent deep-strike capability.

Field artillery systems, in particular, complement our sister services' capabilities. Rockets and missiles can strike the enemy in all weather

continued on page 100



SOLDIERS Are Our Credentials

General Dennis J. Reimer, US Army

This article is adapted from a speech given to the US Army Command and General Staff College, Fort Leavenworth, Kansas, on 13 September 1995.

GOOD MORNING. It is great to be back at the US Army Command and General Staff College. I hope this is truly the best year of your life. I have been told the next four years will be the best years of my life too—and I don't believe that either. I did have a great time, though, at the Command and General Staff College, and every time I come here to talk to our Army's future leaders, it reminds me of my time here.

That year was special to me, first of all, because of the people I met. I have spent my entire career working with, leaning on and coordinating with many of these people on many issues—and still do. The association with them has meant an awful lot to me, and it will to you too.

The other thing I took away from the Command and General Staff College was a realization of the importance of having fun. When I was here, we spent a lot of time in athletics, and I know you do, also. I saw a lot of you running this morning, and the class seems to be very physically fit. My sport during my time here was basketball. Every time we had

one of these lectures just before lunch, it was standard fare for some of us to bring our gym bags and leave them outside the auditorium so we would be the first ones to the gym and on the basketball court. I do not know whether that still takes place or not. I hope it does, because I think that is part of what this year is all about: the chance to have some fun, spend quality time with your family—those of you who are married—and certainly, a chance to learn something, because that just happens.

You really have a great program here, and you will see that as the year goes along. You will have the opportunity to interface with guest speakers who will talk to you about the issues you discuss in the classroom.

I consider Fort Leavenworth to be the heartbeat of the Army, and I want to thank the staff and faculty and the people who make this post run efficiently. It is terribly important for me and other Army leaders to visit Fort Leavenworth. I have had the opportunity to talk to pre-command course officers and their spouses and will receive a leadership development update. I will also talk to the SAMS (School of Advanced Military Studies) students. It does a lot to "recharge my batteries" to come back here and have the opportunity to speak.

I would like to talk about the Army and my assessment of it. I would like to know what issues you see as most important. I really am interested in what you are interested in, so I encourage you to ask questions. The important thing is that we have a dialogue.

Since I am the "newbie" on the block—I have only been the chief of staff for three months—I thought I would take you through my assessment of where the Army is today and where we are headed. The agenda includes the environment we all live and work in. I will address some fundamental truths that we (the transition team) looked at as we went through the assessment process and as I prepared for this assignment. I would also like to talk about command philosophy, so you know what I am telling the commanders. I think my command philosophy is very simple and straightforward, but you ought to hear it from me. Then I will talk about how I see the Army moving and where I see it going.

The Environment

As Figure 1 illustrates, we live in an era of diminishing resources. If you look at what has happened to the US Army, you see our resources are down dramatically. They have been reduced about 40 percent in terms of the budget. When we started planning for fiscal year (FY) 1996, we expected to receive \$96 billion. We will get \$60 billion in FY 96. You build programs and plans based on \$96 billion, and you execute based on \$60 billion. That is a big gap, a big delta, a big drop, and you must be able to handle that. Obviously, we cannot do "business as usual." We cannot do things the way we have always done them, because the resources are drying up faster than the force structure. Therefore, there is a need to become more efficient and do things differently.

We have removed about 450,000 people from the Army's force structure, which includes the Active

and Reserve components and Department of the Army civilians. That number flows off your lips very easily—at least it does mine; but when you stop

If you look at what has happened to the US Army, you see our resources are down dramatically. They have been reduced about 40 percent in terms of the budget. When we started planning for FY 1996, we expected to receive \$96 billion. We will get \$60 billion in FY 96. You build programs and plans based on \$96 billion, and you execute based on \$60 billion.

There have been no "closed for remodeling" signs put up in the United States Army. Our missions have expanded, and we not only have the traditional mission of providing regional security and stability, but we have also picked up additional missions you are very familiar with, such as Haiti, Guantanamo Bay, Macedonia, Somalia and Rwanda.

and think about that in another perspective, 450,000 people is the population of Tucson, Arizona. When you think about it in terms of the human beings involved—the kids who had to leave school in the middle of a school year; the people we had to move from Europe to Fort Stewart, Georgia, and who were put in overcrowded conditions once they got there—you start to get a feel for the pain associated with this drawdown over the past four or five years. I do not need to tell you that, because you have been part of it. It has been very real for all of us, but it is important that we make that point to others.

We have closed over 650 installations—most

Diminishing Resources	Expanding Missions
450,000 decrease in personnel	125,000 soldiers stationed overseas
40 percent decrease in budget	Daily average of 19,000 soldiers deployed to 77 countries
35 percent decrease in materiel base	300 percent increase in operational deployments since 1990
650 installations closed worldwide	

Global Village "CNN Factor"

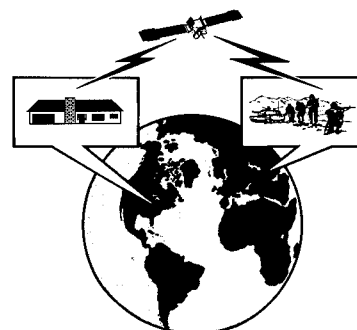
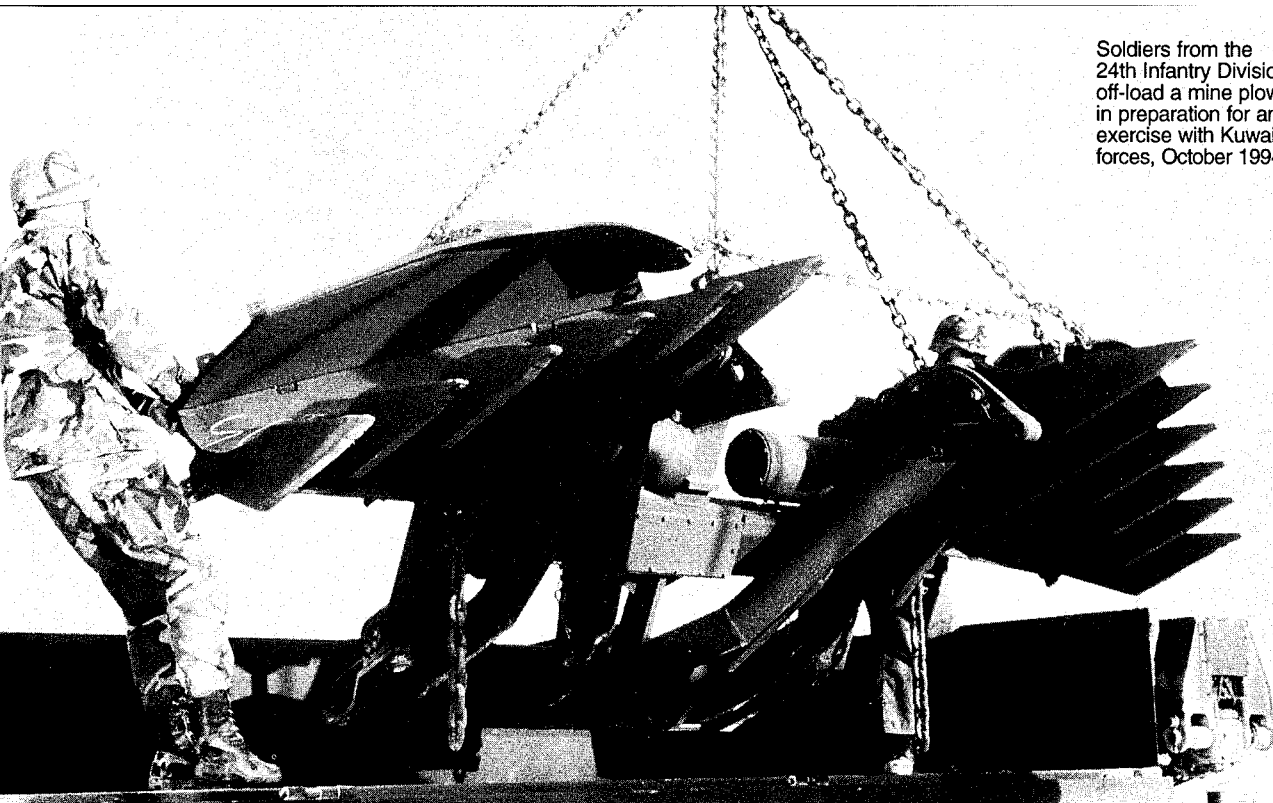


Figure 1. The Environment

Soldiers from the 24th Infantry Division off-load a mine plow in preparation for an exercise with Kuwaiti forces, October 1994.



US Army

The Army's mission has changed. We have gone from a foreign-deployed force to a power-projection Army. . . . The missions we ask soldiers to perform . . . to move to a crisis very rapidly, is all very important. That is why you see the Army leading the charge on things such as the Mobility Requirements Study. That is why you see us advocating fielding the C-17 aircraft and talking about fast sealift and pre-positioned equipment. It is all critically important to our power-projection strategy.

overseas. Some of those were not small. On a recent visit to Germany, I flew over a brigade-size kaserne that was abandoned. It is an eerie feeling to see that great facility sitting there with no soldiers around. I think the Germans feel that just as much as we do. We are drawing down very dramatically. We have drawn down very dramatically overseas.

We have closed major installations in the United States as well. I personally participated in the closure of Forts Sheridan, Ord and the Presidio of San Francisco. I do not need to do that anymore. I mark that up as a "T (trained)." I do not need any more practice.

So that is what we have been involved with. At the same time, there have been no "closed for remodeling" signs put up in the United States Army. Our missions have expanded, and we not only have the traditional mission of providing regional security and stability, but we have also picked up additional missions you are very familiar with, such as Haiti, Guantanamo Bay, Macedonia, Somalia and Rwanda, just to name a few.

In fact, there are about 20,000 soldiers deployed away from home station on a daily basis. Our soldiers spend an average of 138 days a year deployed away from home station, and that varies by MOS

(military occupational specialty). I recently said goodbye to a Patriot missile battalion on its way to Korea, and I talked to a soldier and family on their seventh deployment since Operation *Desert Storm*.



Figure 2. Change of Mission

That is a lot of turbulence. It is a lot of moving out and picking up your rucksack and going for it.

There has been a 300 percent increase in our operational deployments overseas—and that is important. Today, we all truly do live in a global village and, if you watch CNN, you can find out what the Joint Chiefs of Staff are really spending their time doing. Wherever the Joint Chiefs are, chances are the military is working on that particular contingency plan.

I think we have to live with operational deployments. *That* is the environment we face right now—it is the environment all of us live in, and it is an environment, I think, you are going to live in the rest of your Army career. I do not see this changing dramatically anytime soon.

Change of mission. As depicted in Figure 2, the Army's mission has changed. We have gone from a forward-deployed force to a power-projection Army. I think we must be careful here, because we cannot become isolated. We must have the right amount of foreign presence. Everywhere I go, people want to do operations with the US Army. They want to have our Army stationed there, and I think there is a reason for that—when we have troops on the ground, it means we are committed. Where the United States chooses to put its soldiers is very important. The missions we ask soldiers to perform, and the fact that we have transitioned from forward-deployed and containment to power projection and the ability to move to a crisis very rapidly, is all very important. That is why you see the Army leading the charge on things such as the Mobility Requirements Study.

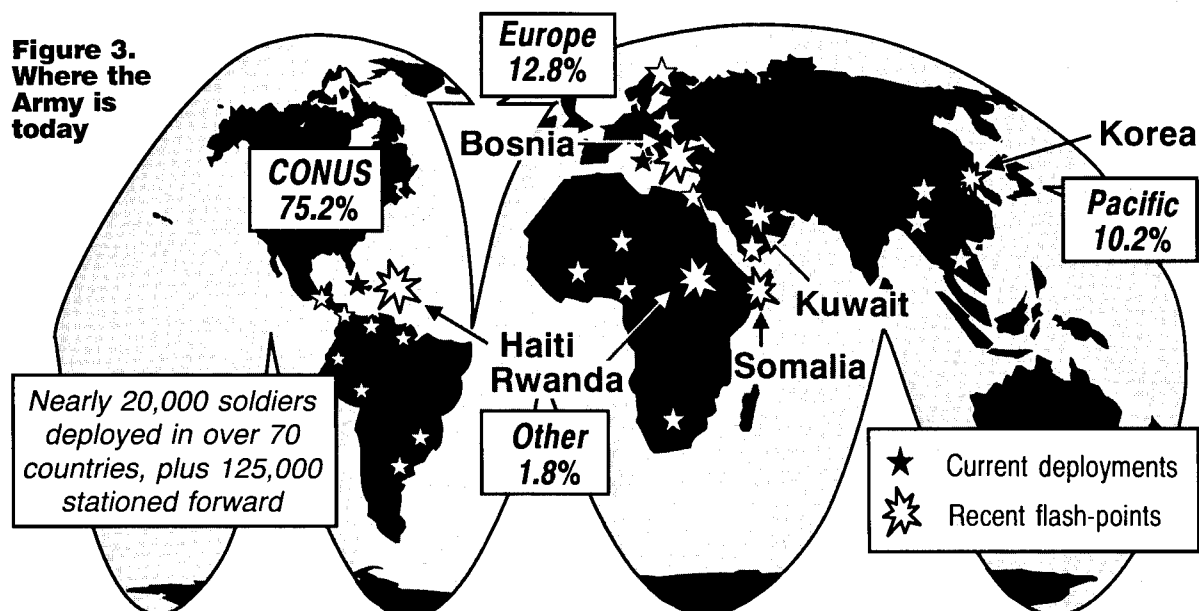
There has been a 300 percent increase in our operational deployments overseas. . . . About 20,000 soldiers [are] deployed away from home station on a daily basis. Our soldiers spend an average of 138 days a year deployed away from home station, and that varies by MOS. I recently said goodbye to a Patriot missile battalion on its way to Korea, and I talked to a soldier and family on their seventh deployment since Operation Desert Storm. That is a lot of turbulence. It is a lot of moving out and picking up your rucksack and going for it.

That is why you see us advocating fielding the C-17 aircraft and talking about fast sealift and pre-positioned equipment. It is all critically important to our power-projection strategy.

Figure 3 shows how the Army has changed and where we are today. We still have more than 125,000 soldiers stationed overseas—about 65,000 in Europe; 50,000 in the Pacific; and the rest scattered around the world. Most of our force is in the Continental United States (CONUS), but we still have hot spots and areas where we are working and deploying soldiers. As the figure shows, we have a full plate.

Fundamental Truths

I think it is important you understand what I consider fundamental truths to be. I will start with the top—with something General Creighton W. Abrams Jr. taught us in 1974—the Army is not made up of



people. The Army is people. More than any other service, I think, we reflect that in everything we do. We reflect it in our quality of life programs and in the

There are a couple of ways we can build stability. We need to continue to focus on attracting and retaining quality soldiers so reenlistment rates remain high. The quality we are bringing in from the US Army Recruiting Command is good. The quality of soldiers we are retaining is very good.

way we approach the budget battles in the Pentagon. We reflect it in the way we do operations and the way we train. People make the Army. They really make the Army go, and I think everybody recognizes that.

Public trust. Public trust is a fundamental truth I highlight, because I think there is a tendency for us to forget it. Think about that for just a minute. You know the US Army is trusted by the public. All the opinion polls show the Army is very high in terms of public trust—the American people trust us, but more important, they trust us with their most precious assets, their sons and daughters. They do not ask what we are going to do with them. They just expect us to do right. That is why the opportunity and responsibility to train these young men and women and to make sure they are prepared to do their mission when we deploy them is so important. That is the awesome responsibility we all have, and that is why public trust is so important—that is why I keep highlighting it to the different audiences I talk to, both internal and external to the Army. It is terribly important for *this* audience to understand that, and I know you do understand the importance. I know you take that responsibility seriously.

Values are important. Values have been important to the Army for over 200 years and always will be important. I think it is time we refocus on those values—selfless service, sacrifice and dedication. They came alive for me again when I attended a Victory in the Pacific commemoration in Hawaii celebrating the end of World War II. I saw the Bataan Death March survivors, the *Battling Bastards of Bataan*, and great Americans they are. Just looking at them, I knew what selfless service, sacrifice and dedication really mean, because I could attach names to them. You can attach people to those values, and I think it is important we keep emphasizing that to the Army.

The Army is big business. We have a financial challenge, a major resource challenge. We get \$60

billion to run the Army, which is less than the United States spends on beer and pizza each year. Stop and think about that. We are willing to spend more on beer and pizza than on our national security—or at least a very important portion. That puts things in perspective. On the other hand, if you look at \$60 billion and say it is not enough, consider the fact that it is three times the gross national product of North Korea. So \$60 billion is a lot of money. All I am saying is that we must recognize the importance of that money and get the most “bang for the buck” we can. I think it is terribly important that we make a commitment to make that happen. The Army is big business. We need to learn from civilian industry how to manage our business practices better.

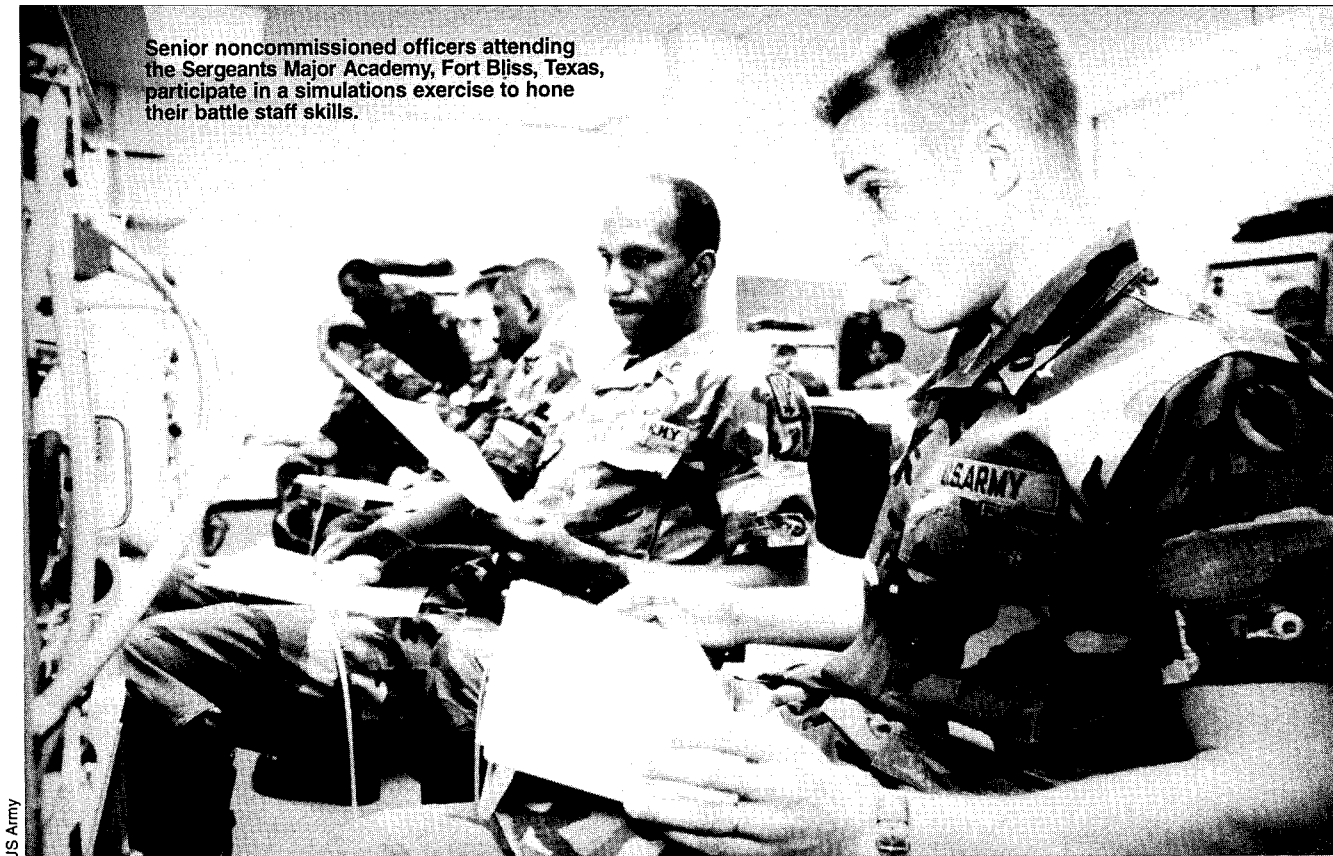
People

My assessment is that our quality remains high. Some people will compare FY 95 and FY 94 in terms of accessions and say not all recruits were high school graduates. No, we did not get 100 percent. We will end up somewhere around 96 to 98 percent for FY 95. If you look back and compare it with FY 92, when we did get 100 percent, and that is your gauge, then, yes, we did not do as well as in FY 92. If you look at the history of recruiting, however, you find that FY 95 was a very, very good year, and I think we enlisted the quality we need. I am extremely pleased with the quality. The troops are motivated; they want to serve.

Quality remains high. I am particularly pleased with what I see in terms of leadership quality. We have the best leadership training program in the world for noncommissioned officers and officers. Although the Noncommissioned Officer Education System (NCOES) needs some fine tuning, we are now producing NCOs at the Sergeants Major Academy who have been through every step of the NCOES system. The leaders I see out there are top notch, and the people we are getting in are good quality. What we have to do is figure out how to make the quality move to the top. The zero defects mentality (where mistakes are considered potential career-enders) is something I am concerned about. I am talking to all commanders about it, and I ask your help in trying to solve that problem.

Job satisfaction remains high. Job satisfaction remains high, which, of course, ties into the fact that troops are motivated and want to serve. That is why it has been so difficult to reshape the Army. People did not want to leave the Army, so we had to do some extraordinary things to make the year groups come out right and shape the Army properly for the future.

Senior noncommissioned officers attending the Sergeants Major Academy, Fort Bliss, Texas, participate in a simulations exercise to hone their battle staff skills.



That was not easy. I would agree there is increased stress throughout the Army, which is tied to the uncertainty of the future: "Where is it we are going to end up?" The stress is also tied to the increase in operational pace and to zero defects thinking.

Zero defects. Where I see potential problems and concerns is in this zero defects environment. I think it is a product of having gone through four tough drawdown years, but there is a general feeling cropping up that "I can't afford to make a mistake, because if I make a mistake, my boss will document it; and if he documents it, I'm out of the Army." That is something we must deal with. I have been through an era of zero defects. It is no good, and we do not want to go back to that. What I am asking commanders to do is look deep into the hearts of people, see the potential and be willing to ride with those who make honest mistakes. I think it is tremendously important that we grow people when they are young and give them the opportunity to make mistakes. They learn from those mistakes, and we need that opportunity.

Increased stress. Deployments have taken their toll, but I think there is something we can do that is a viable low-cost option to reducing that stress—and it basically has to do with "predictability." The soldiers I have talked to do not mind deploying to Haiti or Kuwait if there is a reason to do it. What they object to, and rightfully so, is that on Friday afternoon, we decide we are going to work all weekend because the OR (operational readiness) rates are down. That is something we can change; that is pre-

We have the best leadership training program in the world for noncommissioned officers and officers. . . . The leaders I see out there are top notch, and the people we are getting in are good quality. What we have to do is figure out how to make the quality move to the top.

dictability. That is a low-cost fix. That is leadership. We can do better in this area, and I think this is something we must address.

Readiness and training. My analysis of readiness and training is that the Army can do its mission now and do it very well. I think we demonstrate that on a daily basis, and it is important that we continue to focus on readiness and training because that is the reason the Army exists. From my viewpoint, our training is solid. We have a great program in the combat training centers (CTCs). They are doing exceptionally well. They have been the foundation of our training for some time. If you go to the NTC (National Training Center), Fort Irwin, California; JRTC (Joint Readiness Training Center) at Fort Polk, Louisiana; or CMTC (Combat Maneuver Training Center) at Hohenfels, Germany, you find tough, realistic training done to standard, and that will always be the basis of our training program.

You will hear me talk an awful lot about efficiency, but you will also hear me say we are not going to let efficiency be a "copout" for readiness and

training. We are going to keep the focus on readiness and training, and we are not going to implement efficiencies at their expense.

Training is realistic. I think home station training has generally paid the bills. The NTC, JRTC and CMTC all work well and provide great training. Soldiers are confident the Army can do the mission

General Abrams taught us . . . the Army is not made up of people. The Army is people. More than any other service, I think, we reflect that in everything we do. We reflect it in our quality of life programs and in the way we approach the budget battles in the Pentagon. We reflect it in the way we do operations and the way we train. People make the Army.

because they have trained against the best. The entry-level training is probably not as high as it has been in the past. It is better this year than it was last year, because funding was a bit more plentiful in FY 95 than it was in FY 94, but I think the important thing is that we have a great foundation, and we are going to keep the CTC program the way it is.

However, we must become more effective in our home station training, and we are working on that. Basically, I am convinced that in the near term, readiness and training are in pretty good shape. Training continues to be realistic, certainly at the CTCs. Money is tight and people realize that, and they are starting to pinch pennies. We must go back to some of the low-cost training techniques we used in the past. We can do that, but we must do it carefully. We must be willing to take a risk in terms of simulators, because we can do some trade-off there. But we have to make sure we know what we are trading off before we make those trade-offs.

My big concern is whether we can bring on the modernization program. This concern is more for the future than today, in terms of training and readiness. Resources are tight, and that is not something you can "hand wring" about. You just have to get on with it. You must figure out ways to manage scarce resources, and I think we can become more effective in the way we handle training. We must, however, be careful not to degrade our readiness and training programs in the process.

Stability. In Figure 4, I say we have "ridden soldiers hard and put them away wet" in the last four years. We need to bring stability back to the Army.

Does that mean we cannot deal with change? No. We are getting used to dealing with change. Change has become the status quo, and I think we are handling it very well, but as I have already mentioned, the predictability aspect is important.

There are a couple of ways we can build stability. We need to continue to focus on attracting and retaining quality soldiers so reenlistment rates remain high. The quality we are bringing in from the US Army Recruiting Command is good. The quality of soldiers we are retaining is very good.

Family support has been improving since Operation *Desert Storm*. It has improved across the Active and Reserve components. Army Family Team Building is focused in the right direction. We must ensure we focus on survival skills at the grass roots. It is not some program that can be run and watched over by Washington, D.C. We need to make resources available to the people in the field.

There are several other concerns I see as I travel around, including the erosion of benefits. People talk to me about medical benefits. "You are changing the program." "You are bringing on Tricare now. We do not quite understand it." "What's happening in dental care and medical care?" "What about housing? Are we going to be able to fix housing?" "What about the commissary and PX?" These issues are always under attack.

Obviously, we have some challenges in improving the barracks, but soldiers recognize we are on track to do that. It is going to take us longer than they would like; it is going to take us longer than I would like. But soldiers know we are serious about it, and

Majority of force satisfied with quality of life:

Army attracting and retaining quality soldiers

Army family support is improving

Army family team building is a big success

However, storm clouds on the horizon are threatening:

Job stability and career opportunity

Erosion of quality of life due to unfulfilled expectations, increased deployments and family separations

Erosion of benefits:

- Medical ■ Dental ■ Housing ■ Retirement
- Pay raises ■ PX ■ Commissary

Figure 4. Stability



1st Brigade battle staffers discuss operations during a 3d Infantry Division WARFIGHTER exercise, January 1995.

[The zero defects environment] is a product of having gone through four tough drawdown years, but there is a general feeling cropping up that "I can't afford to make a mistake, because if I make a mistake, my boss will document it; and if he documents it, I'm out of the Army." . . . What I am asking commanders to do is look deep into the hearts of people, see the potential and be willing to ride with those who make honest mistakes. I think it is tremendously important that we grow people when they are young and give them the opportunity to make mistakes. They learn from those mistakes, and we need that opportunity.

we have made some good investments in that particular area.

Add to this the third different retirement system that has gone into effect in the last 10 years. "Is that going to take effect in Congress?" Those are real and valid concerns that people have out there, and we are working those issues. We need your help to emphasize the positive points whenever you have the opportunity to do so. As I look at stability, those elements are the things that concern me most and, I think, concern the force.

Values. I have talked a lot about values already. I won't beat this one to death except to say that it is very, very important. I think we represent the example to the world of what "values" really mean. We are a values-based organization, and we need to recognize that. Values are not something that automatically happen. You have to spend some time talking about values, explaining to new soldiers coming into the Army who do not have those values yet or

do not understand what values are all about.

Duty, honor, country and selfless service to the nation must be more than words—it is a creed by which we live. I have already mentioned World War II, but other selfless acts have occurred in the last four or five years also. The actions in Somalia by Master Sergeant Gary I. Gordon and Sergeant First Class Randall D. Shughart, both Special Forces soldiers who were posthumously awarded the Medal of Honor, epitomize the highest of Army values. Values are what made them do what they did, and those are the things we must emphasize to our new soldiers. We need to talk about those values, and I ask you to do that. All of us in leadership positions must be able to exemplify values. Talk is not enough—you must be able to back up your words with deeds.

Modernization

Modernization is the real challenge for the Army. We are spending less in terms of modernization, and



Army Reservists use the simulation network (SIMNET) to complement annual Brigade Battle Simulation training at Fort Knox, Kentucky.

We must go back to some of the low-cost training techniques we used in the past. We can do that, but we must do it carefully. We must be willing to take a risk in terms of simulators, because we can do some trade-off there. But we have to make sure we know what we are trading off before we make those trade-offs.

we must recapitalize and modernize the force. We must determine how to replace old equipment and fill the shortages. One thing that is good about getting smaller is we can cascade equipment down to some of the people who have not had it. That is not enough, however. We are still not filling all the shortages. We certainly have to make sure that those great tanks we have fielded are upgraded when they become 20 or 30 years old and that we have made them even better.

The same thing is true with all of our equipment. The "Big Five" are getting old. They are wearing out, and what we have got to be able to do is figure

out a way to recapitalize on that investment. Basically, we have been trying to concentrate our efforts in bringing on some essential pieces of equipment such as new trucks. We have had to put some money into precision ammunition too. These are not the things that get you the most visibility, but they are terribly important to our troops in the field. We have product improvement programs to improve the tank and other major vehicles. That is ongoing, but we are just not doing it as fast as we ought to. We have got to be able to find enough resources to make it work. At the same time, we must invest in leveraged technology to make sure we have the right systems

out there in the 21st century. That, of course, is what Force XXI is all about. The major challenge we face in the Army today is how to keep training and readiness high, while at the same time investing the right amount of resources in the quality of life and modernization programs we need for the 21st century.

Force XXI

Force XXI is really our vehicle to modernize the force. When I talk to people about the Army's vision, soldiers tell me, "Well, it's Force XXI and it really is a pretty good vision for the Army." I would just simply say to you that Force XXI is a very important program. People ask me, "How much are you going to change that?" My response is, "Not much." I was a part of the Force XXI development. This was General (Gordon R.) Sullivan's flagship. I think he did absolutely right in focusing the Army on Force XXI. It got us away from worrying about what was happening to us and forced us to focus on the future. Now the challenge, as depicted in Figure 5, is to make Force XXI reality.

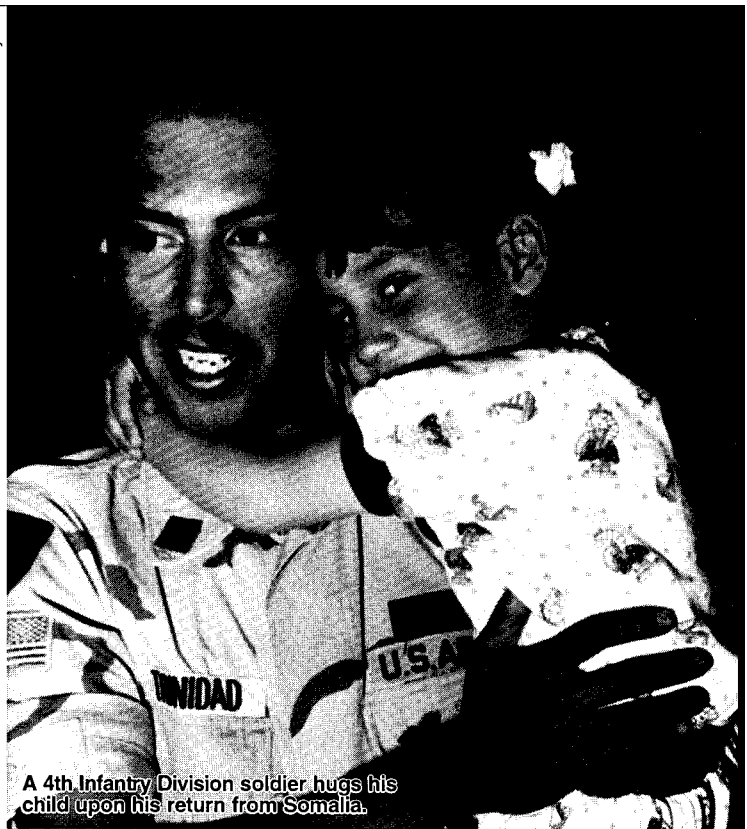
So what we are going to try to do is fine tune this at the margin. We have some resource challenges. We must ensure we invest in those things that give us the greatest payoff. What are they? I think primarily command and control systems. I think primarily systems that allow you to reduce the time from sensor to shooter. Those seem to me to be the highest payoff systems, so I want you to know that Force XXI is on track.

Land force dominance is terribly important to us. We think we have that now. We want to make sure that in conjunction with our allies, we continue to have that into the 21st century—and that means improved lethality and readiness.

We have conducted a series of Advanced Warfighting Experiments (AWEs). You will participate in one in *PRAIRIE WARRIOR* 96. That educates the force about what is happening with Force XXI. We just completed an exercise at Fort Knox, Kentucky,

21st-century technology
Improved lethality and readiness
Information-based Army
Flexible engagement
Land force dominance
Shared situational awareness
Soldiers

Figure 5. Force XXI Challenges



A 4th Infantry Division soldier hugs his child upon his return from Somalia.

We have removed about 450,000 people from the Army's force structure, which includes the Active and Reserve components and Department of the Army civilians. . . .

When you think about it in terms of the human beings involved—the kids who had to leave school in the middle of a school year; the people we had to move from Europe to Fort Stewart, Georgia, and who were put in overcrowded conditions once they got there—you start to get a feel for the pain associated with this drawdown over the past four or five years.

called *FOCUS DISPATCH*. It demonstrated what we can do with simulations and virtual reality and taught us something about staff functions on the digitized battlefield.

We are now moving into *WARRIOR FOCUS*, which is basically a 10th Infantry Division AWE conducted at Fort Polk. The insights on that initially are that the second-generation FLIR (forward-looking infrared radar) and night devices are very good. The Army put a lot of money into them and has developed them to the fullest.

Command and control is okay, although we have some fixes to make in that area. The individual computer is a "rock in a rucksack," and we must figure out how to make it better if we are going to get anything out of it. Right now, it is just added weight to the infantryman, and we have to do better than that. We

We must invest in leveraged technology to make sure we have the right systems out there in the 21st century. . . . The major challenge we face in the Army today is how to keep training and readiness high, while at the same time investing the right amount of resources in the quality of life and modernization programs we need for the 21st century.

must ensure quality soldiers are there to handle Force XXI. We are doing a lot of work in terms of how we have to change their training to make sure they are prepared. So we have some challenges in that area, but the AWE allows us to get a handle on that and gives us some credible analysis to base decisions on.

What we are trying to do with Force XXI is take the quality soldiers we have today and project them into the 21st century with the right organization to meet future challenges. We want the right training packages—the most cost-effective training packages, whether that means live, virtual or simulation—the right doctrine; the right tactics, techniques and procedures; and the right sustainment packages so soldiers can sustain themselves in the 21st century. That is what Force XXI is all about. The issue is: How do you invest your resources and make that happen in the least amount of time?

Command Philosophy

All I want to say about my command philosophy is that I have three very simple rules. They are so simple, in fact, that I am almost hesitant to talk about them, but I think they really reflect something that would make our Army even better if everybody followed them. Simply, we have quality people now in the Army, and if we are willing to empower them and say, “Do what’s right legally and morally every day,” they will do it.

I have not worked with a soldier or a civilian in the last 10 years who I thought came to work every day to mess up the Army. We do not have those kind of people in the Army anymore. So, basically, if we are willing to empower people to do what is right, give them a little “commander’s intent” and let them run, we should be fine. We have to go back and make sure they are going in the right direction and have not gotten out of sync, but we have to be able and willing to empower people. That is *Leadership 101*, as far as I am concerned.

We recruited an awful lot of quality people with the slogan *Be All You Can Be.*® Now it is important, I think, that we make that reality. We must create an

environment where people *can* be all they can be—and you can’t be all you can be in a zero defects environment. That is why I think it is important to focus on an environment that gives you an opportunity to be the best you can be.

Last is the old “Golden Rule”—treat others as you would have them treat you. That has worked for us for a long time. Where we get in trouble is when we get off track and forget about people.

I will also tell you I am proud of what the Army has done in terms of equal opportunity and affirmative action. I think we have done well. I think we lead the nation. President Bill Clinton recognized that in his affirmative action speech a few months ago, but it is something we cannot take for granted. Once you start taking it for granted, once you stop looking at it, it *will* get away from you very quickly. Again, I have been in this Army long enough to know what it is like when an important program gets away from you. We cannot let that happen.

Those are my three basic command philosophies that I have been putting out to commanders and preaching wherever I go. I think if everybody will continue to practice these, we will continue to keep this Army great and move it into the 21st century.

The Army Vision

The Army vision is that we are *the world’s best Army—trained and ready for victory*. We are a Total Force of quality soldiers and civilians that is:

- A values-based organization.
- An integral part of the Joint Team.
- Equipped with the most modern weapons and equipment the country can provide.
- Able to respond to our nation’s needs.

We must change to meet the challenges of today, tomorrow and the 21st century.

The “World’s Best Army” is a bumper sticker, but it is a bumper sticker we deserve and have earned. As I travel around the world, I find that everybody recognizes the US Army as the best in the world. We are the envy of other armies, and people want to work with us, because they know we work very hard at our profession and that we do it very well. Our Army is something soldiers want to be a part of. We do not want anybody in our Army who is satisfied with being second best. That is not good enough in our business.

Trained and ready for victory. I think this statement reflects what our job entails. We can do a lot of other operations, and we do, but do not forget, the most important thing is to be trained and ready for victory.



Eternal vigilance is the price of liberty. The long honor roll of American men and women who have gone before us has established a reputation of professionalism, dedication and self-sacrifice that has made America's Army legendary. This rich legacy of courage and soldierly tradition is what makes our Army second to none.

Total force. That is simply a reflection of the fact that we are a Total Army: Active, US Army Reserve and Army National Guard. We have talked that for many years, but we are not quite there yet. We still have a lot of work to do in that area, but we are moving in the right direction. A seamless Total Force structure must become reality. We must make that happen, and soon.

Quality soldiers and civilians. You know about soldiers, but you may not know as much about our civilians. We have a dedicated civilian work force out there, willing to help us. They bring stability and expertise to the force, and we need to figure out how to maximize their contributions.

Values-based. We have talked about a values-based organization and being an integral part of the joint team. When you become smaller, you have to become more joint. We ought to be more joint anyway, because that is the way we fight our wars. "Jointness" will preclude unnecessary resource turf battles

We represent the example to the world of what "values" really mean. We are a values-based organization, and we need to recognize that. . . . All of us in leadership positions must be able to exemplify values. Talk is not enough—you must be able to back up your words with deeds.

inside the Pentagon. I do not harbor any false illusions in that area, but, basically, we must find a workable solution and figure out how to handle it.

That is my assessment of America's Army—the world's best army. The soldier out there guarding the tomb of the Unknown Soldier today is in very nice weather in Washington, D.C., but he will be out there day and night, in rain or shine, snow or whatever else—that is what selfless service, dedication and sacrifice are all about. That is why all of us owe our best efforts to the soldier. *Soldiers are our credentials!* **MR**

General Dennis J. Reimer is chief of staff of the US Army. He received a B.S. from the United States Military Academy and an M.S. from Shippensburg State College. He has served in a variety of command and staff positions in joint and allied assignments in the Continental United States, Europe, Korea and Vietnam, including commander, US Army Forces Command, Fort McPherson, Georgia; vice chief of staff, US Army, Washington, D.C.; deputy chief of staff for operations and plans, US Army, Military Staff Committee, United Nations, Washington, D.C.; commander, 4th Infantry Division (Mechanized), Fort Carson, Colorado; assistant chief of staff, C3/J3, US Combined Forces Command, and chief of staff, US Army Element, Combined Field Army, Korea; commander, III Corps Artillery and deputy assistant commandant, US Army Field Artillery School, Fort Sill, Oklahoma; and chief of staff, 8th Infantry Division (Mechanized), Bad Kreuznach, Germany.



MIDDLE EAST FOCUS

As our nation moves into the 21st century, we face a challenging and constantly changing political and economic landscape in the Middle East. America's Army will be tasked to help address these challenges and support likely coalition operations. This section examines the various geopolitical, cultural, religious and ethnic challenges commanders must be prepared to deal with in this volatile region. Today, more than ever before, leaders face significant reductions in forward-based capability and will witness continuing shifts in mission focus in the Middle East. For America's Army to be successful in this vital political and economic theater, planners must better understand how our Middle Eastern allies—and enemies—view diplomacy, ethnic conflict, modernity and cultural change.

The Soviet Experience in Afghanistan

Lieutenant Colonel Lester W. Grau, US Army, Retired, and
General Mohammand Yahya, Nawroz, Afghanistan Army, Retired

ONE OF THE ENDURING lessons from Operation *Desert Storm* is no nation wants to stand up against the precision-guided munitions and cruise missiles of the United States unless it has its own precision-guided and smart munitions or an effective air defense. The few countries today with large supplies of such high-tech weaponry are unlikely to confront the United States in the near future. Now, the only effective way for a technologically disadvantaged country to fight a technologically superior one is through guerrilla warfare.

Guerrilla war, a test of national will and endurance, negates many technological advantages. The guerrillas remained when the French left Algeria and Vietnam, the United States left South Vietnam and the Soviets left Afghanistan. As US forces deploy to areas of civil or ethnic strife, such as Somalia, the former Yugoslavia and Haiti, the potential for US involvement in guerrilla warfare grows. Given the worldwide pockets of social, political and economic unrest, it is increasingly apparent that the type of war the United States will most likely face is guerrilla war. The paramilitary forces' success in Somalia and in Bosnia suggests it is in the US military's best interests to review the lessons of the most recent guerrilla war involving a superpower—the Soviet-Afghan War.

Soviet Military Might Meets the Afghan Warrior

Fifteen years after its beginning and five years after its end, the Soviet-Afghan War remains an enigma in the West. Successful past Soviet military interventions in Ukraine (1945 to 1951), East Germany (1953), Hungary (1956) and Czechoslovakia (1968) and intermittent Soviet military pressure on Poland demonstrated that the Soviet state's stark military power was an irresistible tool of Soviet political power. The West, thankful that nuclear deterrence maintained the Cold War balance, reluc-

The Soviets' Afghan invasion was similar to their Czechoslovakian invasion. For months after the invasion, hardly a political or military expert in the world doubted that Afghanistan was forever part of the Soviet Empire and nothing short of a large-scale global war could alter the status quo.

tantly accepted Soviet intervention within its socialist commonwealth and border regions.

The Soviets' Afghan invasion was similar to their Czechoslovakian invasion. For months after the invasion, hardly a political or military expert in the world doubted that Afghanistan was forever part of the Soviet Empire and nothing short of a large-scale global war could alter the status quo. Global war was unlikely since both superpowers intended to avoid it. Some westerners recalled the British experiences in Afghanistan in the 1800s and early 1900s and waited for a Soviet "Vietnam" to emerge, but most believed the Soviets would ultimately prevail. Some even projected their European fears to southern Asia, envisioning a bold Soviet strategic thrust from southern Afghanistan to the shores of the Persian Gulf that would challenge Western strategic interests and disrupt Western access to critical Middle Eastern oil.

The Afghan military's initial active resistance was confined to a short battle against the Soviet *Spetsnaz* unit storming the presidential palace.¹ However, this geographically isolated country's stunned citizens immediately rose to defend their land. Abandoning conventional warfare, the citizens armed themselves with any available weapons, gathered into loose formations and began to attack and sabotage Soviet personnel, installations, depots and transports. On the night of 23 February 1980—only two months after the invasion—open resistance flared when

Kabul's entire population climbed onto rooftops and chanted "God is Great." This open defiance of Soviet might was matched throughout the countryside. The Afghans, a warrior society, sent thousands of soldiers to fight their northern invader.

Entering the maze. Communist power was established in Afghanistan on 27 April 1978 through

Soviet economic and military advisers had been a constant feature in Afghanistan since 1950. The Soviets built many of Afghanistan's roads and airfields. The Soviet General Staff was quite knowledgeable about Afghanistan's geography, economy, sociology and military forces. Yet, the Soviet force commitment, initially assessed as lasting several months, required 10 years and ever-increasing Soviet forces.

a bloody military coup. The new president, Nur M. Taraki, announced sweeping programs of land distribution, women's emancipation and the old Afghanistan social structure's destruction. The new government received little popular support and was immediately challenged by armed resistance fighters. The Army of the Democratic Republic of Afghanistan began to disintegrate as bloody purges swept the officer ranks. In March 1979, the city of Herat openly revolted. Most of the Afghan 17th Infantry Division mutinied and joined the rebellion. Forces loyal to Taraki advanced and occupied Herat after the Afghan air force bombed the city and the 17th Division rebels. More than 5,000 people died in the fighting, including more than 100 Soviet citizens. This event may have led the Soviet General Staff to start intervention planning.²

Afghan soldiers, units and entire brigades deserted to the resistance and by year's end, the Afghan army had shrunk from 90,000 soldiers to about 40,000. More than half the officer corps was purged or executed or had deserted. In September 1979, Prime Minister Hafizullah Amin seized power and executed Taraki. Amin's rule, however, was no better, and the Soviet Union watched this new communist state spin further out of control. The Soviet Politburo moved to stabilize the situation.

The Soviets had significant experience maintaining their socialist empire. Their experiences in subjugating the Hungarian Revolution of 1956, where they suffered 669 killed in action (KIA), 51 missing in action and 1,540 wounded in action, led to

improved methods and techniques. In the 1968 Czechoslovakian invasion, the Soviet army had 96 KIAs.³ Their invasion plan included establishing in-country Soviet military and KGB elements to assist the invasion force and conduct deception operations to divert attention from the future invasion. Under some pretense, a general staff group would tour the country before the invasion to assess and fine tune invasion plans. When the invasion began, the in-country Soviet military and KGB elements would disarm or disable the national military forces. Airborne and *Spetsnaz* forces would spearhead the invasion, seizing major airfields, transportation choke points, the capital city, key government buildings and communications facilities and seizing or executing key government leaders. Soviet ground forces would enter the country, seize major cities and road networks, suppress any local military resistance and occupy key population centers. A new government would then be installed, supported by Soviet forces.

This invasion plan was also used in Afghanistan. Soviet military and KGB advisers infiltrated the Afghanistan armed forces' structure. In April 1979, General of the Army and Main Political Directorate Head A. A. Yepishev led a general officer delegation to Afghanistan to assess the situation. Yepishev had made a similar visit to Czechoslovakia before the 1968 invasion. In August 1979, General of the Army I. G. Pavlovski, commander in chief, Soviet ground forces and commander of the 1968 invasion force, led 60 officers on an extended Afghanistan reconnaissance tour.

The Afghanistan invasion was launched on Christmas Eve, not a Muslim holiday but a time when Western governments were not prepared to react. Soviet advisers disabled equipment, blocked arms rooms and prevented a coordinated Afghan military response. Soviet airborne and *Spetsnaz* forces seized the Salang tunnel, key airfields and key government and communications sites in Kabul and killed President Amin.⁴ The Soviet ground invasion force crossed into the country, fought a few pockets of Afghan military resistance and occupied the main cities, while the Soviet government installed its Afghan puppet regime.

The Soviets expected the resistance to end here, but it had only begun. The Russian Empire had studied the area and maneuvered against the British over Afghanistan in the last century's "great game," when Russia annexed parts of northern Afghanistan. The Soviet Union had established diplomatic ties with Afghanistan in 1919 and had enjoyed extensive bilateral trade contacts since the 1930s. Soviet eco-

conomic and military advisers had been a constant feature in Afghanistan since 1950. The Soviets built many of Afghanistan's roads and airfields. The Soviet General Staff was quite knowledgeable about Afghanistan's geography, economy, sociology and military forces. Yet, the Soviet force commitment, initially assessed as lasting several months, required 10 years and ever-increasing Soviet forces. It proved a bloody experience in which the Soviet Union reportedly killed 1.3 million people and forced 5.5 million Afghans—a third of the prewar population—to leave the country as refugees. Another 2 million Afghans were forced to migrate within the country. Today, the countryside is still ravaged and littered with mines. Collectively, the Soviet Union inflicted more suffering on Afghanistan than Germany inflicted on the Soviet Union during World War II.

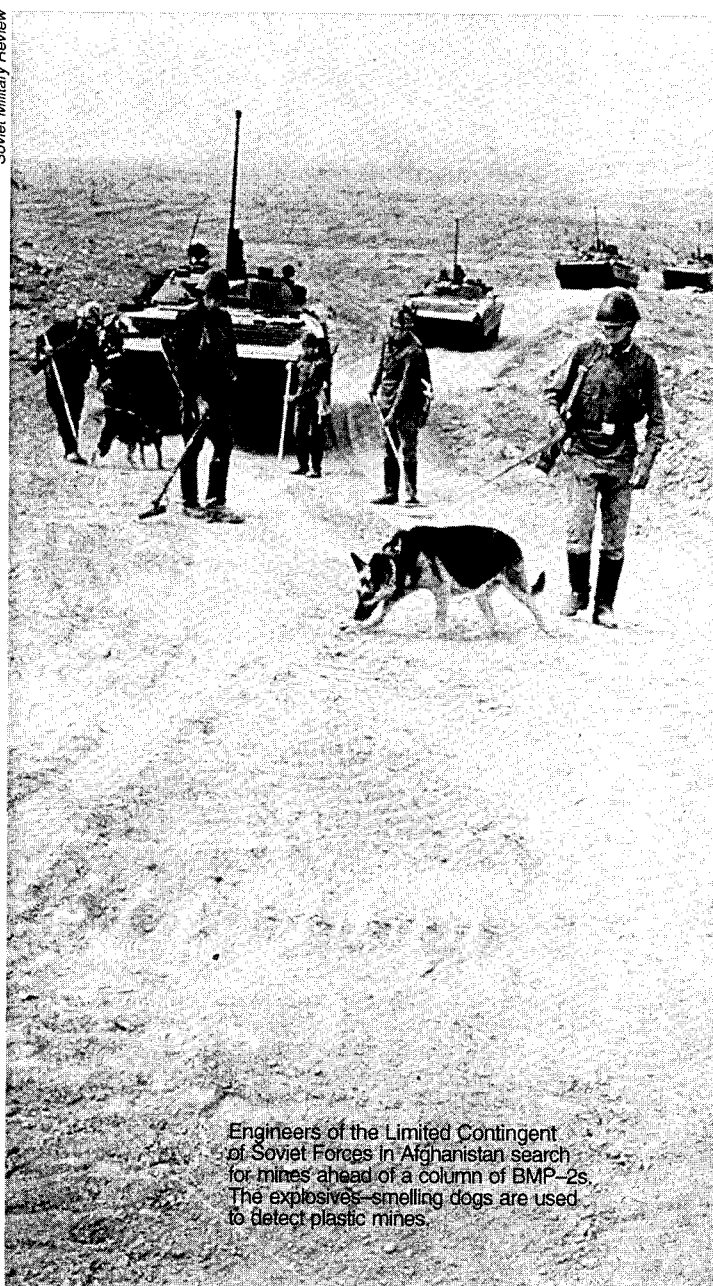
The Soviet concept for the military occupation of Afghanistan included the following:

- Stabilize the country by garrisoning the main routes, major cities, air bases and logistics sites.
- Relieve the Afghan government garrison forces and push them into the countryside to battle the resistance.
- Provide logistic, air, artillery and intelligence support to Afghan forces.
- Provide minimum interface between Soviet occupation forces and the local populace.
- Accept minimal Soviet casualties.
- Strengthen Afghan forces to defeat the resistance so Soviet forces could withdraw.

Warfighting, Soviet style. The Soviet military's initial strategic concept, operations plans and tactical methods in Afghanistan did not differ markedly from what any modern army would have undertaken elsewhere in the world. Massive firepower delivered from fixed-wing aircraft, helicopters, artillery, rocket launchers and tanks preceded all advances. Tanks and armored vehicles would cautiously move only after their commanders were convinced no functioning enemy weapons remained in the advance zone. The Soviet force would then overrun the contested area, firing indiscriminately at any moving object or even just into the air until they were satisfied their mission was achieved.

Initially, the Soviets apparently considered close combat by dismounted infantry and mopping-up actions superfluous. They felt their huge expenditure of heavy artillery and rocket shells, combined with bombing and strafing by their fighter-bombers, had either destroyed their miserably equipped opponents or panicked them into permanent exile in Pakistan or Iran. But Afghan freedom fighters—the

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Engineers of the Limited Contingent of Soviet Forces in Afghanistan search for mines ahead of a column of BMP-2s. The explosives-smelling dogs are used to detect plastic mines.

The Soviet military's initial strategic concept, operations plans and tactical methods in Afghanistan did not differ markedly from what any modern army would have undertaken elsewhere in the world. Massive firepower delivered from fixed-wing aircraft, helicopters, artillery, rocket launchers and tanks preceded all advances. Tanks and armored vehicles would cautiously move only after their commanders were convinced no functioning enemy weapons remained in the advance zone.

mujahidin—come from a traditional warrior society and proved highly resourceful in fighting the Soviets. They saw no point in remaining under aerial and artillery barrages or facing overwhelming odds and

Western reporting always lacked immediacy, graphic impact and continuous coverage. The Soviet-Afghan War was virtually ignored compared to wars in Chad, Iran and Iraq, the Falkland Islands and Lebanon. Inaccessibility and stringent Soviet control prevented the press from carrying the war into the homes of the world's citizenry.

firepower. They were adept at temporarily withdrawing from Soviet strike areas and then returning in hours, days or weeks to strike their enemy where he was exposed. Over time, mujahidin morale grew and they became better equipped with modern weapons taken from demoralized Afghan army soldiers or acquired across national borders.

The harsh, inhospitable land and the deadly treatment the Soviets received from people in towns and the countryside gradually affected the Soviet soldier's psyche. The indoctrination they were subjected to during their training melted away as they increasingly faced the war's grim realities. They soon realized they were not fighting this brutal war against American and Chinese imperialists, but against a poor, but proud nation defending its faith, freedom and way of life.

Several stark realities place the Soviet-Afghan War in proper perspective and permit its proper assessment in the context of Soviet military, political and social development. First, although violent and destructive, the war was limited and protracted. Its tempo and decisiveness did not match that of the short Arab-Israeli wars during the Cold War years. It lacked the Korean War's well-defined, large-scale military operations and the well-defined political arrangements which ended that war. It also differed significantly from the oft-compared Vietnam War. In Vietnam, US military strength rose to more than 500,000 troops employed in many divisional and multidivisional operations. By comparison, in Afghanistan, a region five times the size of Vietnam, Soviet strength varied from 90,000 to 120,000 troops. The Soviets' four divisions, five separate brigades, three separate regiments and smaller 40th Army support units strained to provide security for the 29 provincial centers and industrial and eco-

nomic installations and were hard-pressed to extend security to thousands of villages, hundreds of miles of communications routes and key terrain features that spanned the country.

Second, faced with this imposing security challenge and burdened with a military doctrine, strategy and operational and tactical techniques suited to a European or Chinese theater of war, the Soviet army was hard-pressed to devise military methodologies to deal with Afghan guerrillas. The Soviets formulated new concepts for waging war on nonlinear battlefields dominated by more lethal high-precision weapons. This new battlefield required traditional operational and tactical formation abandonment, redefinition of traditional echelonment concepts and wholesale formation and unit reorganization to emphasize combat flexibility and survivability.

During the early and mid-1980s, the Soviet military altered its theater-strategic offensive concept; implemented shallower echelonment at all levels; developed the air echelon concept; experimented with new force structures such as corps, brigade and combined arms battalions; tested more flexible logistic support concepts; and adopted such innovative tactical techniques as the *bronegruppa* (armored group).⁵ Afghanistan not only provided a test-bed for many of these lower-level concepts; it also demanded imaginative new techniques. While the brigade, materiel support battalion and armored group emerged on the Afghan battlefield, *Spetsnaz* units sharpened their skills and employed air assault techniques.

Third, the Soviet military's inability to win the war decisively condemned it to suffer a slow bloodletting, a process that exposed Soviet political, societal and military weaknesses. Employment of a draft army with full periodic troop rotations back to the Soviet Union spread the war's travails and frustrations and soldiers' self-doubts through the entire Soviet population. The problems so apparent in the wartime army soon became a microcosm of the latent problems afflicting Soviet society in general. Recently released casualty figures underscore the problems' pervasiveness: Soviet dead and missing in Afghanistan amounted to almost 15,000 troops, a modest percent of the 642,000 Soviets who served during the 10-year war. Far more telling were the 469,685 other casualties, fully 73 percent of the overall force, who were wounded or incapacitated by serious illnesses. Some 415,932 troops fell victim to disease—more than 115,300 contracted infectious hepatitis and 31,080 caught typhoid fever. These numbers point out that Soviet military hygiene and

the conditions surrounding troop life were abominable. These diseases, unheard of in armies with modern medicine, had a staggering social impact on returnees and the Soviet population.⁶

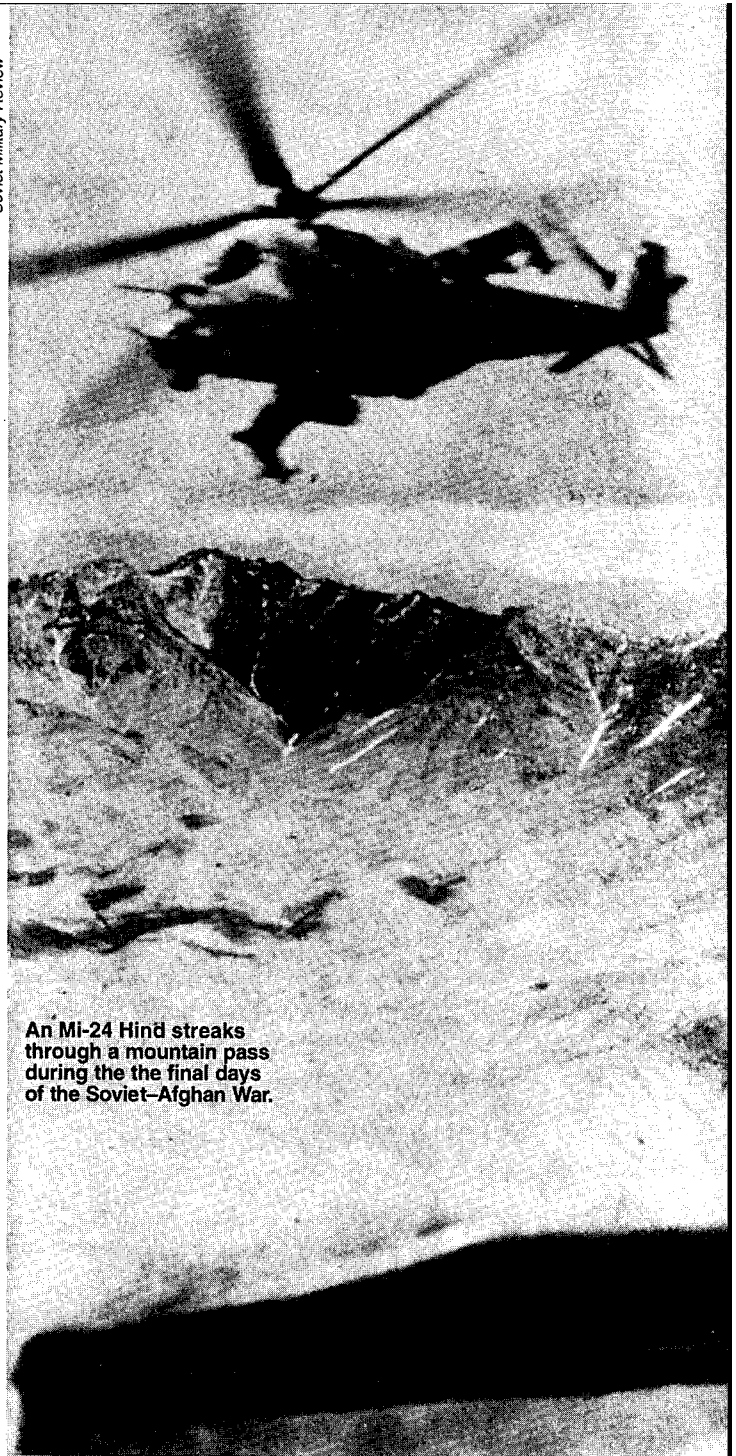
The Soviet Union's armed forces were structured, equipped and trained for nuclear and high-intensity war on the great northern European plain. However, their political leadership thrust them into an Afghan civil war to reconstitute and support a nominally Marxist-Leninist government. The terrain, climate and enemy were entirely different from what they had prepared for. In this locale, their equipment functioned less than optimally, their force structure was clearly inappropriate and their tactics were obviously wrong. The Soviet Union's citizens did not understand why their sons were being drafted to do battle in a strange land and failed to see how their sacrifices contributed to the fatherland's security.

Ideologically, Soviet leadership was unable to come to grips with war in Afghanistan. Marxist-Leninist dogma did not allow for a "war of national liberation" where people fought against a Marxist regime. Initially, the press carried pictures of happy Soviet soldiers building orphanages and did not mention they were also engaged in combat. By 1983's end, the Soviet press had reported only six dead or wounded soldiers, although by that time, the 40th Army had suffered 6,262 dead and 9,880 wounded. It was only during the last three years of the war, under Mikhail Gorbachev's *glasnost* policy, that the press began to report the war more accurately.

The mujahidin were inadequately covered either by reporters working in Pakistan or the few adventurous journalists who braved the dangerous, months-long trek into Afghanistan. Western reporting always lacked immediacy, graphic impact and continuous coverage. The Soviet-Afghan War was virtually ignored compared to wars in Chad, Iran and Iraq, the Falkland Islands and Lebanon. Inaccessibility and stringent Soviet control prevented the press from carrying the war into the homes of the world's citizenry.

The Soviet Combat Experience

There are some striking similarities between the Soviet role in Afghanistan and the US role in Vietnam. Like the Americans, the Soviets had to restructure and retrain their forces while in the combat zone. Eventually, Soviet military schools and training areas began to incorporate Afghan combat experience to prepare personnel for Afghan duty. Mountain warfare training centers sprang up in many districts. The Soviet-Afghan War was not an all-encompassing experience for the officer corps,



An Mi-24 Hind streaks through a mountain pass during the the final days of the Soviet-Afghan War.

The Soviets used helicopters extensively . . . but like all wartime innovations, this advantage did not last long. The guerrillas adapted by fighting at night when the helicopter was least effective. Thanks to intelligence that revealed Soviet attack times and locations, the Afghan guerrillas could effectively set up air defense ambushes and dig protective bunkers. The guerrillas received newer and more powerful weapons to use against the helicopters, including the Stinger shoulder-launched air defense missile.

though. Barely 10 percent of Soviet motorized rifle, armor, aviation and artillery officers served in Afghanistan. However, many airborne, air assault and *Spetsnaz* officers served there.

The Soviets were slow to adopt new tactics dealing with the rugged terrain and enemy. By the time the Soviets finally realized the importance of dismounting conventional motorized rifle troops for close combat and mopping up, it was too late. The troops and their officers were reluctant to leave the

[Soviet] draftees were told they would fight Chinese and American mercenaries. When they got to Afghanistan for their 18-month tour, they soon discovered they were unwelcome occupiers in a hostile land. Morale plummeted further at this realization.

In the field, Soviet soldiers razed villages and murdered occupants in retaliation for ambushes or suspected aid to guerrillas.

Some of these actions seem to have been officially sanctioned, while others appear to have resulted from a breakdown in discipline.

Clearly . . . battlefield victory can be almost irrelevant, since victory is often determined by morale, obstinacy and survival.

relative safety of their armored personnel carriers and preferred to rely on artillery and air strikes rather than engaging in close combat. They lost the willingness to combat a relentless enemy. The pressure of an unpopular, lengthy and expensive war transformed many tough, stubborn and ruthless Soviet soldiers into liabilities whose sole hope was to survive and go home.

Co-author General Nawroz, a resistance leader, once watched a Soviet motorized column return from a day's combat. Its mission was to open a highway for traffic and destroy the enemy blocking it. The Soviets acted like conquerors as they passed by Nawroz's hiding place. Officers stood inside the turrets of the tanks, firing machineguns in the air and to the sides as if they had vanquished their enemies forever. Meanwhile, disabled tanks and trucks were towed, carefully camouflaged, inside the column. When Nawroz reached the highway battle site, he saw swarms of very young, cheerful freedom fighters running to the highway from all directions, armed only with a few AK-47 assault rifles and rocket

launchers. They were collecting the meager spoils of the combat that had just taken place. The vainglorious Soviet column's return actually followed a rout.

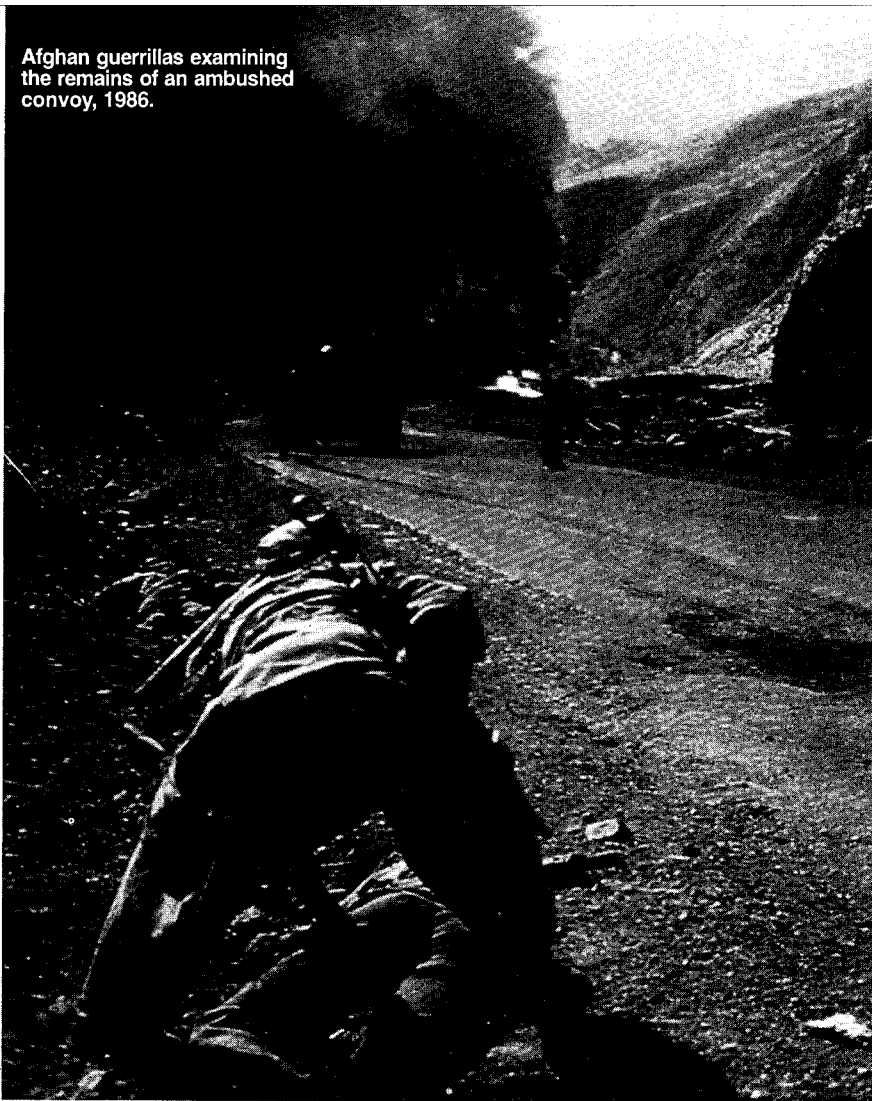
Not all Soviet soldiers avoided their duty. Many fought valiantly throughout the war. In particular, soldiers in *Spetsnaz*, airborne, air assault and mountain rifle units, as well as those in separate motorized rifle brigades, continually sought close combat with the freedom fighters. These forces, accustomed to fighting outside armored vehicles, had not yet developed the "mobile bunker" mentality.

Initially, Soviet tactics, designed for a major European war, were to be implemented rapidly by conscripts and reservists without hampering the unfolding operation. Spacing between vehicles and the ability to dismount a personnel carrier, form a squad line and provide suppressive small-arms fire were prized motorized rifle tactics. Tactical initiative was not encouraged as it tended to upset operational timing.

The mujahidin did not accommodate the Soviet army by fighting conventional war. They refused to dig in and wait for Soviet artillery. The Soviets found massed artillery and simple battle drills had little effect on the elusive guerrillas. Tactics had to be reworked on site. Air-ground coordination, artillery adjustment and coordination among maneuver units were often poor and required constant "quick fixes." The most innovative tactics were seen in the airborne, air assault and *Spetsnaz* forces and the two separate motorized rifle brigades in counterinsurgency battle. Far less innovation was apparent among the motorized rifle regiments. Tanks were of limited value, but helicopters were a tremendous asset and engineers were always in demand.

Even in the conflict's initial stages when the guerrillas had little experience, the Soviets failed to win engagements. Without the helicopter gunship, the Soviets may have withdrawn years earlier. Its firepower, mobility and initial invulnerability put the guerrillas on the defensive. The Soviets used helicopters extensively and ruthlessly against the unprotected guerrillas. But like all wartime innovations, this advantage did not last long. The guerrillas adapted by fighting at night when the helicopter was least effective. Thanks to intelligence that revealed Soviet attack times and locations, the Afghan guerrillas could effectively set up air defense ambushes and dig protective bunkers. The guerrillas received newer and more powerful weapons to use against the helicopters, including the Stinger shoulder-launched air defense missile which proved to be a very effective weapon against low-flying aircraft. Masterful Stinger employment by Afghan freedom fighters

Afghan guerrillas examining the remains of an ambushed convoy, 1986.



Europäische Wehrkunde

heavily tilted the balance toward the mujahidin. Even extensive use of Soviet air power from across the northern border could not change the situation.

Westerners often decry the youth and inexperience of Soviet soldiers and noncommissioned officers, but the guerrillas found the training standard of the Soviet soldier, especially the ethnic Russian, to be comparatively high. Nawroz met some prisoners of war who showed good technical knowledge and practical skills. But these qualities were not properly used in Afghanistan due to adverse psychological and environmental conditions.

Although the Soviet-Afghan War forced the 40th Army to change tactics, equipment, training and force structure, the Soviet army never had enough forces in Afghanistan to win. Initially, the Soviets had underestimated the enemy's strength. Logistically, they were hard-pressed to maintain a larger force and, even if they could have tripled the force's size, they probably would still have been unable to win. Often, they could not assemble an entire regiment for combat and had to cobble together forces from various units to create a makeshift regiment. Base camp, airfield, city and lines of communication (LOCs) security tied up most of the motorized rifle forces, allowing the mujahidin to interdict roads and pipelines supplying Soviet and Afghan forces.⁷

Afghan freedom fighters—the mujahidin—come from a traditional warrior society and proved highly resourceful. . . . They saw no point in remaining under aerial and artillery barrages or facing overwhelming odds and firepower. They were adept at temporarily withdrawing from Soviet strike areas and then returning in hours, days or weeks to strike their enemy where he was exposed.

Soviet Tactical Innovations

Soviet ground forces developed the *bronegruppa* concept to use the personnel carriers' firepower as an independent reserve once motorized rifle soldiers dismounted. It was a bold step, because Soviet mechanized force commanders dislike separating dismounted infantry from their carriers. However, rough terrain often kept BMP and BMD infantry combat vehicles and BTR armored personnel carriers from following or supporting their squads. The *bronegruppa* concept gave the commander a potent, maneuverable reserve that could attack independently on the flanks, block expected enemy withdrawal routes, serve as a mobile fire platform to reinforce elements in contact, perform patrols, serve in an economy-of-

force role in both the offense and defense and provide convoy escort and security functions.

Soviet ground forces adopted bounding overwatch for their mounted ground forces. One or more combat vehicles would occupy dominant terrain to cover other vehicles as they advanced. The advancing group would then stop on subsequent dominant terrain to cover the covering group's forward deployment. When dismounted, however, Soviet motorized rifle units normally placed crew-served weapons in overwatch positions but did not usually bring them forward periodically to cover the advance. Reconnaissance forces, however, used bounding overwatch when dismounted.

Air assault and helicopter gunship tactics improved steadily throughout the war. However, the Soviets never had enough helicopters and air assault forces to perform all necessary missions and often squandered these resources on unnecessary operations. Helicopter support should have been part of every convoy escort, but it was not. Dominant terrain along convoy routes should have been routinely seized and held by air assault forces, yet this seldom occurred. Soviet airborne and air assault forces were often the most successful in closing with the resistance, yet airborne and air assault forces were usually understrength.

Air assault forces were often quite effective when used in support of mechanized ground attacks. Heliborne detachments would land deep in the rear and flanks of mujahidin strongholds to isolate them, destroy bases, cut LOCs and block withdrawal routes. Ground forces would advance to link up with heliborne forces. Usually, heliborne forces would not go deeper than supporting artillery range or would take their artillery with them. However, the Soviets some-

Continued Soviet emphasis on massed firepower vice accuracy meant that dismounted soldiers carried more ammunition than their Western counterparts would. Further, heavy crew-served weapons always accompanied the dismounted force. . . . Dismounted Soviet soldiers could not catch up with the fleet Afghan guerrillas.



Soviet infantry companies in Afghanistan relied heavily on AGS-17 30mm grenade launchers for support.

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times inserted heliborne troops beyond the range of supporting artillery and suffered the consequences. Although the combination of heliborne and mechanized forces worked well at the battalion and brigade levels, the Soviet preference for large-scale operations often overrode tactical efficiency. Ten large conventional offensives involving heliborne and mechanized forces swept the Pandshir Valley with no lasting result.

The Soviets used enveloping detachments frequently in Afghanistan. Battalion- or company-size forces were split off from the main body and sent by separate routes to the mujahidin's flank or rear to support the advance of the main body, perform a separate mission, prevent mujahidin force withdrawal or conduct simultaneous attacks from one or more unexpected directions. If the enveloping detachment was dismounted, it was usually composed of airborne, air assault or reconnaissance forces. Enveloping mounted detachments were frequently *bronegruppas*.

Since ground forces were always critically short of combat elements, reconnaissance forces were often used in combat. The Soviets' failure to bring in more troops to free up this valuable asset stems from their longstanding tradition of using such units in a combat role. As a result, the mujahidin won the reconnaissance battle. Their countrywide observer network and messengers maintained constant Soviet force observation. The Soviets relied primarily on aerial reconnaissance, radio intercept and agent reconnaissance for intelligence production. Quite often, these reconnaissance sources failed to produce usable tactical intelligence. Consequently, the Soviets often failed to find the mujahidin unless the mujahidin wanted them to.

Soviet Equipment

Many new systems were introduced and field tested during the Soviet-Afghan War, but most had been designed and tested prior to deployment. The most notable were the BMP-2, BTR-80, *vasilek* 82mm automatic mortar, self-propelled mortar, AGS-17 automatic grenade launcher, BM-22 multiple rocket launcher, Mi-8T Hip helicopter, Su-25 ground support aircraft and AK-74 assault rifle. Additionally, several Mi-24 Hind helicopter gunship models were introduced during the war. Tanks were available but had limited use in mountain warfare. Consequently, the T-64 was the most modern tank used in Afghanistan.

The motorized rifle force concept was a marriage of soldiers and armored personnel carriers. The soldier was never supposed to be more than 200 meters from his carrier. His load-bearing equipment (LBE),

uniform, weaponry and other field gear reflected this orientation. Afghanistan became a light infantryman's war but the Soviets had very little light infantry there. In general, Soviet ground soldiers remained tied to their personnel carriers and the equipment designed to be carried by the personnel carriers. Consequently, the standard flak jacket weighed roughly 35 pounds. This was acceptable when assaulting dismounted for less than a kilometer. However, dismounted advances of three kilometers or more would stall due to troop exhaustion. The reconnaissance flak jacket was lighter and better but in short supply.

Soviet field uniforms proved inappropriate for Afghanistan. They were restrictive and uncomfortable, and the camouflage pattern was designed for northern Europe, not the high mountains. Soviet boots were noisy and unsuited for mountain climbing. When possible, commanders put their soldiers in tennis shoes.

Using 1950s technology, most Soviet LBE and rucksacks were not designed for continuous field use outside an armored personnel carrier. Some modern rucksacks, boots, ice axes and LBE were issued to mountain rifle battalions and *Spetsnaz* but were in short supply. Soviet sleeping bags, made of cotton, were not waterproof. When it rained, which it did in the mountains, the sleeping bag soaked up water, became much heavier and did not keep soldiers warm. The premier trophy for a Soviet soldier was a mujahidin sleeping bag, made in the West, which was lightweight, waterproof and warm.

Field rations were also a problem. They were unpalatable and the shiny tin cans reflected sunlight. Because digging garbage pits in the mountains was difficult, the Soviet soldier usually just threw his empty cans around his fighting or ambush position—which aided mujahidin reconnaissance. Heat tabs for warming rations frequently crumbled or were not available.

Continued Soviet emphasis on massed firepower vice accuracy meant that dismounted soldiers carried more ammunition than their Western counterparts would. Further, heavy crew-served weapons always accompanied the dismounted force. The 12.7mm heavy machinegun weighed 75 pounds without its tripod and ammunition. The AGS-17 automatic grenade launcher weighed 66 pounds, with each loaded ammunition drum weighing 32 pounds. Dismounted Soviet soldiers could not catch up with the fleet Afghan guerrillas.

Many innovative experimental systems were developed and employed during the war such as

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A Soviet soldier captured by Afghan guerrillas, 1988

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truck- and BTR-mounted AGS-17s and various ordnance racks for helicopter gunships. New mine-clearing gear, mine plows and mine rollers were tried with varying success. Dogs were trained to detect mines and guerrillas, and the Soviets developed a new helmet for better protection.

The Soviets also experimented with several force structures. They constituted self-sustaining separate motorized rifle brigades and separate motorized rifle battalions for independent action. They formed mountain rifle battalions and experimented with combined-arms battalions and motorized rifle companies with four line platoons. All this was done to come up with an optimum troop mix for counterinsurgency and independent action. Materiel support brigades and battalions were formed to provide more

Since ground forces were always critically short of combat elements, reconnaissance forces were often used in combat. The Soviets' failure to bring in more troops to free up this valuable asset stems from their longstanding tradition of using such units in a combat role. As a result, the mujahidin won the reconnaissance battle. . . . The Soviets relied primarily on aerial reconnaissance, radio intercept and agent reconnaissance for intelligence production [which often] failed to produce usable tactical intelligence.

Logistically, [the Soviets] were hard-pressed to maintain a larger force and, even if they could have tripled the force's size, they probably would still have been unable to win.

effective support to combat units. Airborne, air assault and *Spetsnaz* forces were refitted with roomier BTRs and BMPs. Forces were "up-gunned" with extra machineguns, AGS-17s and mortars. The Soviets used these new formations as a test-bed. The post-Afghanistan Russian force structure envisions a mix of corps and brigades for maneuver war and nonlinear combat, while it plans to use divisions and regiments for conventional, ground-gaining combat.

Soviet Morale

During the war, Soviet youths increasingly tried to avoid the draft and Afghanistan duty. Large bribes were paid to exempt or safeguard privileged children. A disproportionate number of youths from factories and collective farms served in Afghanistan. At Soviet training centers, draftees were told they would fight Chinese and American mercenaries. When they got to Afghanistan for their 18-month tour, they soon discovered they were unwelcome occupiers in a hostile land. Morale plummeted further at this realization. As in other armies, field soldiers were too busy to get into much trouble, but rear-echelon soldiers with routine supply, maintenance and security duties had too much time on their hands. Many conscripts developed narcotics habits in Afghanistan and financed their habits by selling equipment, ammunition and weapons. Some turned to violent crime, robbing merchants and passersby. At Soviet checkpoints, soldiers would search Afghan civilians' luggage for weapons. Routinely, Afghans carrying large amounts of money were "sent to Kabul," which meant they were taken out of sight of the checkpoint, where the soldiers killed them and stole their money.

Officer morale also suffered. Although an officer got four years service credit toward his pension for serving a two-year Afghan tour, he soon saw the officer corps had been given an impossible task and would be the scapegoat for its failure. There was constant tension at base camps as officers vied for the affections of female post exchange cashiers, nurses and secretaries. Afghanistan service saw the rebirth of the Soviet World War II "field wife" tradition. But, with a shortage of women, competition was fierce and sometimes violent among the officers. Vodka was the officers' drug of choice and some quarrels were settled with grenades or small arms.

In the field, Soviet soldiers razed villages and murdered occupants in retaliation for ambushes or suspected aid to guerrillas. Some of these actions seem to have been officially sanctioned, while others appear to have resulted from a breakdown in discipline. Clearly, mujahidin morale greatly surpassed Soviet morale.

Lessons Learned

Modern mechanized forces are still in peril when committed to fight guerrillas in the middle of a civil war on rugged terrain. The Soviet-Afghan War demonstrated that:

- Guerrilla war is a contest of endurance and national will. The side with the greatest moral commitment—ideological, religious or patriotic—will hold the ground at conflict's end. Battlefield victory can be almost irrelevant, since victory is often determined by morale, obstinacy and survival.
- Secure logistics and LOCs are essential for guerrilla and counter guerrilla forces. Security missions, however, tie up most conventional forces.
- Weapon systems, field gear, communications equipment and transport designed for conventional war will often work less effectively or fail completely on rugged terrain.
- Conventional war tactics do not work against guerrillas. Forces must be re-equipped, restructured and retrained to fight guerrillas or to fight as guerrillas. The most effective combatants are light infantry.
- Tanks have limited utility for the counter guerrilla force but can serve as an effective reserve on suitable terrain. Infantry fighting vehicles and helicopters play an important role in mobility and fire support. Mechanized forces usually fight effectively only when dismounted and when using their carriers for support or as maneuver reserves. Ample engineer troops are essential for both sides.
- Field sanitation, immunization and preventive medicine are of paramount importance in less-than-

optimal sanitary conditions. Often, providing immediate medical support to wounded combatants is not feasible.

- Journalists and television cameramen are key players in guerrilla warfare. One's cause can be effectively aided when championed by a significant portion of the world's press.

- Logistics determines the scope of activity and force size either side can field.

- Unity of command is very important, yet sometimes impossible to achieve.

- Air domination is irrelevant unless air power can be precisely targeted. Terrain seizure can be advantageous, but is usually only of temporary value. City control can be a plus but can also be a liability. Population support (civil-military operations) is essential for the winning side.

According to Nawroz, the Soviet-Afghan War was a rare confrontation in history because it helped trigger the Soviet Union's collapse. Both sides learned lessons from the conflict. Whatever else these lessons may show, the most fundamental is that no army, however sophisticated, well trained, mate-

Several stark realities place the Soviet-Afghan War in proper perspective and permit its proper assessment in the context of Soviet military, political and social development. . . . Although violent and destructive, the war was limited and protracted. Its tempo and decisiveness did not match that of the short Arab-Israeli wars . . . [and it] lacked the Korean War's well-defined, large-scale . . . operations and the well-defined political arrangements which ended that war.

rially rich or numerically superior, can succeed on the battlefield if it is not psychologically fit and motivated to fight. The force, however destitute in materiel and numbers, that can rely on the moral qualities of strong faith, stubborn determination, individualism and unending patience, will always be the winner. Although these may not be the optimum qualities stressed in Western armies, they prevail in guerrilla-style warfare. **MR**

NOTES

1. *Spetsnaz* are "forces of special designation" and can include various branches or jobs. In Afghanistan, highly trained, hardened *Spetsnaz* commandos performed long-range reconnaissance, close combat and special forces functions.

2. Few endnotes are included in this report because GEN Mohammad Yahya Nawroz is a primary source. Retired LTC Lester W. Grau extracted much material from his book *The Bear Went Over the Mountain: Soviet Tactics and Tactical Lessons Learned During Their War in Afghanistan* (Washington, DC: National Defense University, to be published in late 1995). This article is a condensed Foreign Military Studies Office (FMSO) report, *The Soviet War in Afghanistan: History and Harbinger of Future War* (Fort Leavenworth, KS: FMSO, 1994).

3. *Grif sekretnosti snyat: Poteri Vooruzhennykh Sil SSSR b voynakh, boevykh deystviyakh i voennykh konfliktakh (Removing the secret seal: Casualty figures of the Armed Forces of the USSR in war, combat action and military conflicts)*, edited by G. F. Krivosheev (Moscow: Voenizdat, 1993), 397-98.

4. The Salang tunnel is a 1.7-km highway tunnel north of Kabul. Located more than 3,300 meters above sea level, it was a crucial site for control of the Kabul-Moscow line of communication.

5. The *bronegrupa* is a temporary grouping of four or five tanks, BMPs or BTRs (or any combination of such vehicles). The BMP tracked combat vehicles or BTR wheeled combat vehicles are deployed without their normally assigned infantry squad on board and fight separately from their dismounted troops. The grouping has a significant direct-fire capability and serves as a maneuver reserve.

6. On paper, the Soviet 40th Army looked to be in good shape, but it was unable to

maintain adequate personnel strength in its line units. Regiments were often at single battalion strength, battalions at single company strength and companies at single platoon strength. First priority on personnel replacement always went to filling driver, gunner and vehicle commander slots for unit combat vehicles. This left a few reluctant personnel available to dismount and fight the resistance. As noted, disease cut into Soviet combat strength as poor field sanitation practices and improper diet contributed to the spread of disease. Hepatitis, typhus, malaria, amoebic dysentery and meningitis often sapped from 25 to 33 percent of a unit's strength. From October through November 1981, the entire 5th Motorized Rifle Division was combat ineffective with more than 3,000 of its soldiers sick with hepatitis. Units were filled twice a year from the spring and fall draft call-ups. Conscripts sent to the Turkestan Military District had six to 12 months training before deploying to Afghanistan for the rest of their service. Further, military districts and groups of forces were levied for troops twice annually. Although these levies were quite large, unit field strengths remained appallingly low. The Soviets learned that units need to be filled well in excess of 100 percent to field and maintain a reasonable fighting force.

7. Soviet equipment losses included 118 fixed-wing aircraft; 333 helicopters; 147 tanks; 1,314 armored personnel carriers; 433 artillery pieces or mortars; 1,138 communications or command post vehicles; 510 engineer vehicles; and 11,369 trucks. Many of these losses were on highways, and a key loss was a large number of cargo-carrying trucks. The Soviets were able to field large formations for operations in the Pandshir Valley and other locales and could launch local offensives with overwhelming superiority, but it required extraordinary planning and execution efforts to do so.

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General Mohammad Yahya Nawroz, Afghan Army, Retired, lives in Pakistan after serving with several Afghan resistance organizations. He is a graduate of the Indian National Defense College, the US Army Command and General Staff College, the US Army Infantry School and the Afghan Military Academy. After serving in the Afghan military for 32 years, he was jailed by communist coup leaders in 1978. Upon his release in 1980 by Soviet forces, he fled to Pakistan to join the resistance headquarters. In 1989, he became the first chief of the general staff of the Afghan Interim Government. He re-entered Kabul in 1991 and was named minister for national security. His differences with government policies led to his eventual return to Pakistan.

Health Threats to Soldiers Serving in the Sinai

Major Jeffery M. Gambel, US Army

WHETHER IT BE from Moses' wanderings during the Exodus or the Egyptian-Israeli conflicts since the 1940s, most people have heard of the Sinai in eastern Egypt. The Sinai Peninsula, one of the world's most beautiful and strategic landscapes, comprises 23,000 square miles (similar in size to West Virginia) between the Mediterranean Sea to the north and the Red Sea to the south. To its west and running northward are the Gulf of Suez and the Suez Canal, the shortest sea link between the Indian Ocean and Mediterranean Sea. To its east are the Gulf of Aqaba, Saudi Arabia, Jordan and southern Israel, important bridges between Africa and the Eastern Hemisphere. As testimony to its geopolitical and historical significance, more than 50 armies have marched through the Sinai.¹

Fishermen and merchants inhabit the coast, while Bedouin goat and sheep herders live in the interior. Egypt's official religion is Islam, and its language is Arabic. The Sinai's rugged appearance belies its ecological fragility. Coral reefs along the Gulf of Aqaba and the large springs at the Sinai's northwestern edge are just two examples of the rich natural resources there in danger of overuse. The Sinai Desert is known for hot days, chilly nights, winter floods and shifting sands. Spring sandstorms, rugged terrain and extremes of heat and cold wreak havoc upon people and equipment alike. Still, its majestic natural surroundings, spiritual sites such as Mount Sinai and St. Catherine's Monastery and its rich biblical history make the Sinai an impressive location.

Over the last 45 years, fierce fighting and a courageous peace have been the Sinai's legacy. War erupted after the proclamation of the State of Israel in 1948, and other conflicts followed, including the 1956 Anglo-Franco-Israeli invasion of Egypt following the Suez Canal's nationalization, the 1967 Six-Day War and the 1973 Middle East War. Since 1973, there has been relative peace in the region,

excluding the Gulf War in 1991. In September 1978, Egypt's President Anwar Sadat and Israel's Prime Minister Menachem Begin signed the Camp David Accords, which later in the 1979 Treaty of Peace ended the state of war existing between the two countries since 1948 and set terms for Israel's phased return of the Sinai, establishing new relationships between the two countries.²

As part of the Treaty of Peace, the Sinai was divided into zones A, B and C with a narrow strip, Zone D, within Israel. Each zone has limits on the military force types and numbers it can contain. Zone C, which borders Israel, contains civil police and government officials but no Egyptian military forces.³

The Multinational Force and Observers (MFO), a light infantry peacekeeping force, was deployed in 1982 to observe, report and verify treaty violations by both parties in all four zones. Civilian observers assess potential violations. Additionally, the MFO has a three-vessel coastal patrol unit to monitor traffic along the southern Sinai coast.

The US Army is part of the 11-nation (non-UN) MFO, which is composed of approximately 3,000 soldiers, civilian observers and support personnel. The other 10 countries are Australia, Canada, Colombia, Fiji, France, Hungary (since fall 1995), Italy, New Zealand, Norway and Uruguay. The MFO occupies 33 outposts in Zone C and the installations in El Gorah, or North Camp, and Sharm el Sheik or South Camp, which are 370 miles apart. The US contingent is composed of the 1st US Army Support Battalion (1SB) and its four companies, which serve one year, and a light infantry battalion from one of four US divisions, which rotates every six months and is based in southern Sinai.⁴

The first light infantry battalion of Active Army, National Guard and Army Reserve soldiers assigned to the Sinai MFO is now complete. The last 200 members of the 82d Airborne Division's Task Force

4th Battalion, 505th Parachute Infantry Regiment, deployed from Pope Air Force Base, North Carolina, in late January. They joined other members of the 548-member task force, which began deploying to the Sinai in early January for a six-month tour of duty. The US deployment represents the first time in 13 years of MFO support that volunteers from the Reserve Component have been included in the mission.⁵ Colombia and Fiji also provide light infantry units to remote outposts, while Italy provides support to the naval unit and France to the fixed-wing unit. Egyptians work at the two main installations performing various tasks through a contractual agreement with a commercial Egyptian company.

Thirteen years' experience in the Sinai has helped MFO and US peacekeeping troops identify the most significant military health threats and may serve as a guide for health planning if a larger-scale deployment or more unstable operational situation develops. The North and South camps have physicians and medics to provide health care, while outposts only have medics for routine and emergency care. Ground or air medical evacuation to northern or southern camps and, if necessary, to larger medical centers in Egypt (Cairo) or Israel (Tel Aviv, Eilat or Beersheba) is available. The US Naval Medical Research Unit (NAMRU) No. 3 in Cairo, established in 1946, conducts infectious disease research in the region and has assisted the MFO with investigations of diseases such as cutaneous leishmaniasis, a sandfly-spread disease that causes skin ulcers.⁶

Immunization and Prophylaxis

The US military is effectively meeting the challenges of downsizing, force projection and a rapidly changing world situation with versatility and strength as reflected by the continuing success of MFO Sinai deployments. The next century will pose even greater health risks and challenges as peacekeeping deployments increase. Like no time before, these changes will require that today's soldiers be trained and ready to operate effectively anywhere in the world. However, like their military forebears, soldiers occupying future foxholes must defend themselves against insects and disease. Leaders should know that the immunizations listed below are required for all MFO personnel deploying to the Sinai.

- Hepatitis A/Immune Serum Globulin (ISG): 5cc every six months.
- Tetanus/Diphtheria: one dose every 10 years.
- Yellow Fever: one dose every 10 years.
- Oral Polio: one dose following a primary series.
- Influenza (September through February): one dose annually.

- Meningococcal: one dose within three years before deployment.

- Typhoid Fever: a booster within three years before deployment.

A tuberculin skin test, PPD, is also required before deployment. All health care workers should receive the hepatitis B series, and animal handlers should be

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current on the pre-exposure rabies vaccination series. The threat of plague and cholera is not currently significant. Anticipating even the remote possibility that some soldiers might transmit El Tor cholera, the MFO has placed special emphasis on preventive sanitation measures.⁷ The El Tor vibrio serotype was named after the El Tor Quarantine Station in the Sinai, circa 1906.⁸ Soldiers should also receive the primary series of measles, mumps and rubella shots before deploying.

Malarial risk is minimal in the Sinai but exists in rural isolated areas of the Nile Delta, El Faiyoum, some oases and parts of southern Egypt. Travelers to these areas should take chloroquine and use personal protective measures.⁹

Heat Disorders

Heat disorders—stroke, exhaustion and cramps—are the major environmental threats to soldiers deployed throughout the Sinai, particularly in the south where temperatures can reach 120 degrees Fahrenheit. These disorders may appear as primary problems or exacerbate other conditions such as diarrhea and fever. To prevent heat disorders, soldiers must have time for acclimatization, tailored work and rest cycles and adequate hydration. The Wet Bulb Globe Temperature Index should serve as a guide in preventing heat injuries. Command emphasis on proper hydration procedures may be required. A unique situation developed in the MFO at El Gorah

The current state of worldwide deployments dictates that soldiers may frequently need to get acclimated to climates that are ostensibly less severe than the Sinai.

US Army



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in 1991, when drinking water pumped from the usual source, a northern Sinai aquifer, gradually became nonpotable due to elevated total dissolved solutes, chromium and other compounds. To prevent an increase in heat-related illnesses, MFO personnel stationed at El Gorah have been receiving bottled water with directions on quantities to consume.

Soldiers must be educated about factors that may contribute to heat disorders such as excessive activity, inadequate salt and water intake, sweat inhibitors

(occlusive clothing or skin conditions), diarrhea, fever-causing illnesses, obesity, fatigue, lack of sleep, alcoholism, history of heat stroke, poor physical condition and taking various medications such as anticholinergics, salicylates and antihistamines.¹⁰ Spring sandstorms can raise temperatures 20 to 30 degrees within a few hours, and ambient dust can be hazardous to those prone to respiratory diseases.

Infectious Diseases

Infectious diarrhea is the most common debilitating illness among travelers to Egypt. In 1991, approximately 60 MFO North Camp soldiers experienced acute diarrhea, which was traced to contaminated dining facility milk. However, MFO personnel most often contract "travelers' diarrhea" when visiting sites outside the Sinai or eating locally prepared food. Consuming only thoroughly cooked foods, canned or bottled beverages without ice and pasteurized dairy products are necessary precautions in preventing diarrhea. Common pathogens that can cause diarrhea include enterotoxigenic *E. coli*, *Salmonella* spp., *Shigella* spp., *Campylobacter* and *Giardia lamblia*. Less common pathogens include *Entamoeba histolytica*, *Cryptosporidium* spp. and rotavirus. Most diarrhea is self-limited and responds well to treatment with adequate hydration. Moderate to severe diarrhea cases may require a three-to-five-day course of antibiotics. Although antibiotic resistance has become an increasing problem, most diarrhea cases will still respond to antibiotics.¹¹

Sandfly fever, spread by an infectious sandfly bite, is a significant risk to nonindigenous personnel in the Sinai. Although the illness is self-limiting, it can be debilitating for up to several weeks. High season for sandflies is April through November. Compliance with the US military's personal protective measures system—which also includes applying 33 percent extended-duration insect repellent to skin, spraying permethrin on the battle dress uniform (BDU) and netting and wearing the BDU properly—can be very effective in preventing diseases spread by insects and spiders.¹² So far, sandfly fever has not been a significant problem in the MFO.

The cutaneous leishmaniasis (CL) skin disease is widespread in the Sinai, peaking from June through September. Risk of visceral leishmaniasis—a disease that attacks the internal organs—is low. Many CL cases have been reported in the MFO, particularly at two Fijian-manned outposts. Beyond increasing personal protective measures and rodent and sandfly control, relocating the two outposts has been considered. In 1990, two Colombian soldiers were diagnosed with *L. braziliensis*, a "New World" variant of



Destroyed or abandoned Egyptian equipment litters the Mitla Pass area, 11 June 1967.

The Sinai poses special hazards to drivers. Drifting sands, which may cover wide patches of road, make road surfaces surprisingly slick. . . . Sandstorms and sun glare reduce visibility. Given heavy loads and mountainous terrain, it is essential to drive slowly enough to allow for sufficient braking distance.

Unexploded ordnance from previous battles litters the Sinai. It is not uncommon for Bedouins to disarm ordnance or bring it to MFO personnel for disposal. . . . It is essential that individuals stay on main routes in the Sinai unless accompanied by an experienced guide. The bottom line: Stay clear of suspicious objects.

the skin disease not normally found in the Eastern Hemisphere. It is unclear whether Middle East sandfly species can transmit *L. braziliensis*.¹³ Investigators at NAMRU No. 3 and others have been conducting ongoing CL surveillance in the Sinai.

Hepatitis A, B and E are highly endemic to Egypt and pose a major health risk to MFO personnel. For prevention, soldiers should receive ISG or hepatitis A vaccines before deployment. Hepatitis B vaccine should be given to health care workers and others working closely with local inhabitants who may be hepatitis B carriers. Egypt also has a high antibody prevalence of hepatitis C.¹⁴ Hepatitis E, previously classified as enterically (spread via the digestive system) transmitted non-A, non-B hepatitis, may account for 25 to 50 percent of hospitalized cases of acute viral hepatitis in Egypt.¹⁵

Other infectious disease threats of potential military significance are partially dependent upon activities, contacts and travel to other areas in Egypt and Israel and include typhoid and paratyphoid fevers, meningococcal meningitis, schistosomiasis (infestation with parasites that enter through the skin), rabies, flea-borne typhus, boutonneuse fever (a tick-borne illness causing achiness and other symptoms), trachoma (chronic inflammation of eye membranes) and tuberculosis. Various helminths, such as tape-worms, roundworms, pinworms and whipworms, are found throughout the region. Sexually trans-

mitted diseases, such as syphilis, gonorrhea and AIDS, occur at rates generally lower than in Western countries.¹⁶ Rift Valley fever has recurred in Egypt's Aswan/Luxor area, the Giza area west of Cairo and the Sharquia area in the east-central portion of the Nile Delta north of Cairo.¹⁷

Venomous Threats and Accidental Injuries

Six venomous snakes live in the Sinai, including desert black snakes, saw-scaled vipers and Persian-horned vipers. Their bites usually cause only localized symptoms, but fatalities do occur. Fortunately, no snake-bite deaths have been reported among the MFO to date. Antivenom is available for only two of the snakes. Additionally, the yellow scorpion and black widow spider on land, and jellyfish, fire coral, cone shells, stone fish and lion fish off shore present additional risks to unsuspecting personnel.¹⁸

The Sinai poses special hazards to drivers. Drifting sands, which may cover wide patches of road, make road surfaces surprisingly slick. Shifting sands also may move or uncover old land mines; therefore, driving over open sand should be avoided. Sandstorms and sun glare reduce visibility. Given heavy loads and mountainous terrain, it is essential to drive slowly enough to allow for sufficient braking distance. Drivers should also have adequate supplies of water, fuel and basic spare parts at all times. Despite a rigorous driver safety program, the

Infectious diarrhea is the most common debilitating illness among travelers to Egypt. . . . Consuming only thoroughly cooked foods, canned or bottled beverages without ice and pasteurized dairy products are necessary precautions in preventing diarrhea. . . . Most diarrhea is self-limited and responds well to treatment with adequate hydration. Moderate to severe diarrhea cases may require a three- to five-day course of antibiotics.

MFO has had several driver fatalities.¹⁹

Soldiers deployed to locations similar to the Sinai are sometimes bored and feel isolated. Adjusting to unfamiliar surroundings and separation from loved ones takes time.²⁰ Leaders should watch for signs of alcohol abuse and should discourage general roughhousing that can undermine discipline and possibly lead to orthopedic and other injuries. Sports injuries account for the largest unintentional injury category. To alleviate soldiers' boredom, leaders can encourage them to take advantage of the MFO's educational, recreational, social and travel opportunities.

As previously mentioned, unexploded ordnance from previous battles litters the Sinai. It is not uncommon for Bedouins to disarm ordnance or bring it to MFO personnel for disposal. Explosions, usually

involving Bedouin children, often occur. It is essential that individuals stay on main routes in the Sinai unless accompanied by an experienced guide. The bottom line: Stay clear of suspicious objects.

Although the "winds of peace" seem to be blowing in Southwest Asia, visitors should be aware of the potential for terrorism and learn to minimize their risk. Keeping abreast of political events, such as peace negotiations between the Israelis and Palestinians, is essential. Over the last two years, several foreigners have been killed or wounded due to political violence in the region. Travel to areas such as East Jerusalem, the West Bank and Gaza may require special attentiveness to safety for years to come.

In the post-Cold War era, we can anticipate expanded roles for the United States and other countries in international peacekeeping. Military forces must be prepared for a wide range of contingencies.²¹ Identifying mission-specific threats to soldiers' health and taking adequate steps to prevent disease and injury will always be key components for successful peacekeeping. The MFO's history provides useful lessons about successful international peacekeeping and serves as a model for emerging missions in other troubled parts of the world. **MR**

Editor's Note: The author wishes to acknowledge Lieutenant Colonel Thomas Quarnstrom, MFO force surgeon from July 1992 to June 1993; Lieutenant Colonel Glenn Mitchell, MFO force surgeon from July 1993 to June 1994; Lieutenant Colonel James McGhee, MFO force surgeon from July 1994 to June 1995; and Captain Richard Hibbs, former commander, US Naval Medical Research Unit No. 3, for their generous cooperation and essential input to this article.

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Jihad

in the 20th Century

George W. Gawrych

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MUSLIM CRIES of *Allahu Akbar* (God is Great) have rung out on Middle Eastern battlefields throughout this century. Yet US military analysts and historians have failed to devote any serious attention to studying Islam and its relationship to war. Perhaps a cultural bias inhibits in-depth inquiry. North American political tradition enshrines clear separation of church and state. Muslim rulers' calls to *Jihad*, therefore, invoke images of fanatical soldiers duped into mindless assaults on fortified enemy positions. It behooves us to remove some of these misconceptions and stereotypes blocking an objective analysis of the region's military behavior. Islamic military culture is both unified and diverse. The tension between these two forces must be analyzed to understand Middle Eastern warfare. As Iraqi General Muhmut Shit Khattab stated, "The human factor is still the decisive factor in war; it is still the most important force for any weapon or any equipment. However, man without creed is like foam, the foam of a torrent. . . . The return to Islam will entail the proclamation of Islamic Jihad."¹

Classical Jihad

Islam emphasizes peace but sanctions Holy War. In fact, armed struggle was an integral part of Islam's foundation in the seventh century. This historical reality creates a unique ideal: War becomes an extension of religion by other means.

Muhammad's prophethood. Muslims believe God called Muhammad (570 to 632 A.D.) to prophethood to establish the Islamic religion. Born in the commercial town of Mecca, Muhammad is said to have received his first revelations from God in 610. Until 622, Muhammad was a preacher concentrating on proclaiming the Islamic message and encouraging people to accept the faith. Then in 622, Muhammad fled Mecca for Medina to escape imminent arrest. His flight was so epochal in

Jihad comes from the verb jahada: to strive, struggle or fight. Muslim jurists have identified two types of Jihad in the religious sense. The Greater Jihad (al-jihad al-akbar) refers to the personal struggle of the heart, where the believer strives to overcome personal temptations and the carnal self. This inner struggle is Jihad's highest form. . . . The Lesser Jihad (al-jihad al-asghar) is the outward struggle of Muslims against those attacking the faith and requires using the tongue, hands or sword.

Islamic history that later, Muslims based their own lunar calendar on it.

In Medina, Muhammad founded the *ummah* or universal Islamic community, and local tribes submitted to his authority. To govern this developing state, Muhammad extended his prophethood's dimensions beyond that of preacher. He had become statesman (*al-siyasi*) and conqueror (*al-fatih*).²

The nature of Islamic revelation changed as Muhammad's mission expanded. Muhammad's Meccan revelations primarily addressed matters of personal faith between God and believer. In Medina, Muhammad focused more on politics, trade, taxation and other areas essential to government administration.

The growing Islamic community in Medina posed a threat to Mecca's prevailing pagan values. Eventually the communities fought for military supremacy in the region. In this armed struggle, Muhammad assumed the mantle of military leadership in accordance with God's command for him to resist evil. "Fight in the way of God against those who fight against you, but begin not hostilities. Lo! God loves not the aggressors. And slay them wherever ye find them, and drive them out of the places whence they drove

you out, for persecution is worse than slaughter.”³

Until his death in 632, Muhammad participated in 27 expeditions and fought in nine engagements, suffering a minor wound in one.⁴ Muslims regard these

The Abode of Islam refers to areas under Muslim rule. [Wars between] Muslim governments . . . cannot be Jihad. The Abode of War are lands controlled by non-Muslim rulers who oppose Islam, persecute Muslims or conduct hostile operations against Islamic states. Muslims must wage Holy War against such states. . . . Finally, there is the Abode of Peace, where non-Muslim rulers allow Muslims freedom of worship and willingly enter into treaties with Muslim states.

battles as necessary, for they allowed Muslims to worship freely, secure from attack and persecution.⁵

Jihad tradition. War has been an essential feature in the Islamic faith's spread. From 622 to 632, Muhammad's domain grew from Medina to encompass much of Arabia. One hundred years after the prophet's death, the Islamic empire's borders stretched from India to France.

In light of these conquests and early in Islamic history, Muslim jurists had to come to grips with the relationship between Islam and war. *Jihad* became the term associated with religious warfare. However, it carries a much deeper meaning than what Westerners would usually describe as holy war.

Jihad comes from the verb *jahada*: to strive, struggle or fight. Muslim jurists have identified two types of Jihad in the religious sense. The Greater Jihad (*al-jihad al-akbar*) refers to the personal struggle of the heart, where the believer strives to overcome personal temptations and the carnal self. This inner struggle is Jihad's highest form. During this Jihad, Muslims strive to internalize the Islamic message through prayer, fasting and almsgiving.

The Lesser Jihad (*al-jihad al-asghar*) is the outward struggle of Muslims against those attacking the faith and requires using the tongue, hands or sword. Only in the last instance, however, do Muslims engage in mortal combat by taking up arms against Islam's enemies.

Islamic teaching thus ennobles military service and war for the faith. In fact, God promises eternal life to any Muslim who dies fighting "in the path of God." Muslims call such fallen soldiers *martyrs* or *shahid*.

To adjudicate the propriety for peace and war, some Muslim jurists have divided the world into three territories. The Abode of Islam refers to areas under Muslim rule. Ideally, Muslim governments should not fight each other, but for various reasons, they do. Such wars, however, cannot be Jihad. The Abode of War are lands controlled by non-Muslim rulers who oppose Islam, persecute Muslims or conduct hostile operations against Islamic states. Muslims must wage Holy War against such states. In this case, Muslims have tended to conceptualize the armed struggle as one waged against unbelief (*kufir*) and infidels. For Muslim scholars, *kufir* has meant more than denial of truth; it also includes a direct threat to the Islamic community. Finally, there is the Abode of Peace, where non-Muslim rulers allow Muslims freedom of worship and willingly enter into treaties with Muslim states.

Despite the divine sanction for war conducted for the faith, the Quran—the book of writings accepted by Muslims as God's revelations to Muhammad—clearly prohibits forced conversion, stating, "There is no compulsion in religion."⁶ Islamic teaching specifically advocates tolerance of Christians and Jews, whom the Quran identifies as People of the Book, a term that also applies to Muslims.

Historically, whenever they conquered new territories, Muslim rulers awarded Christians and Jews protected status, allowing them to live in their separate communities and practice their faith according to their own laws and traditions. In return for this religious freedom, Christians and Jews paid a special poll tax, which exempted them from obligatory military service. Until the 19th century, standing armies in the Middle East were virtually the exclusive domain of Muslims. Christian and Jewish subjects, although under protected status, failed to gain political and legal equality with Muslims. Western forces would later challenge this arrangement.

The Western world has complicated matters for the Islamic community. Since the end of the 18th century, Muslims have faced Western imperialism placing Muslim armies on the defensive. Intellectually, Western secularism and nationalism have forced Muslims to debate among themselves Islam's place in politics, society and war. Muslim responses to these Western challenges can be categorized in three ways: secularism, fundamentalism and modernism.

Secularism. Muslim secularists seek to separate Islam from politics and regard nationalism and secularism as modern history's primary forces. Countries go to war with national armies for national interests. According to this view, the state should impose no

Islamic practices on society—religion should be a matter of private conscience. Secularists argue that Islam only suffers when rulers or religious institutions use the faith for political ends. Religious leaders should concern themselves with “saving souls” and upholding society’s moral order. Two modern secular states are Turkey and Iraq.

Turkey has been a secular state since the Kemalist Revolution (1923 to 1938). Although approximately 99 percent of the country is Muslim, Turkey has no official state religion. Instead, the Turkish constitution enshrines nationalism and secularism as two inviolable principles. Thus, official state ideology has no place for Jihad.

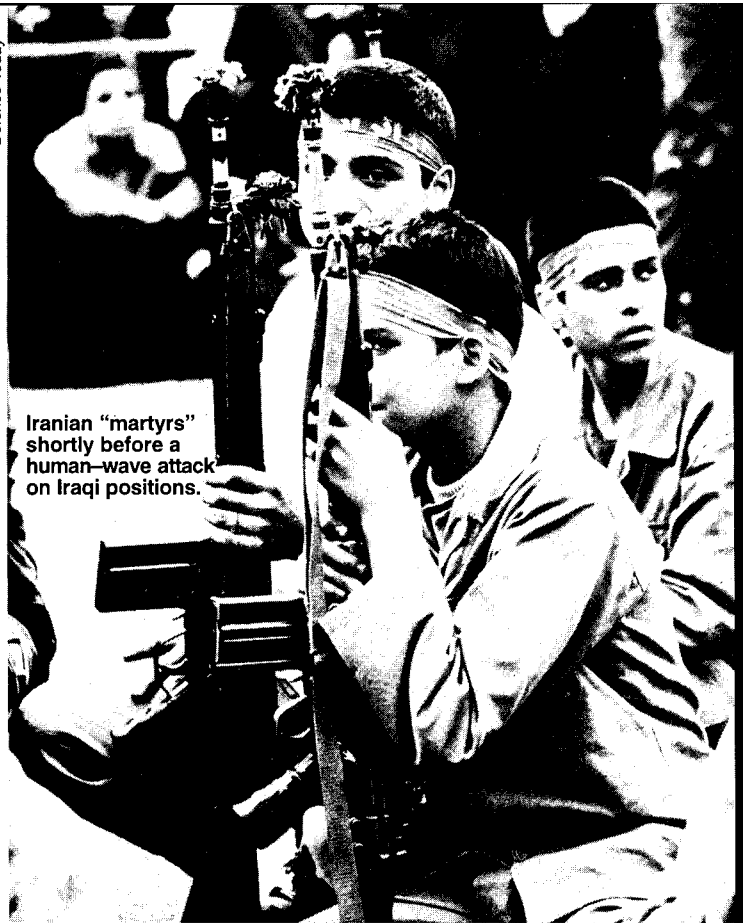
Despite the secular constitution, Turkey’s armed forces have a place for Islam in their military culture. Turkish soldiers receive religious instruction stressing how Islam ennobles military service and that martyrdom is the greatest honor on the battlefield. The stress is on giving one’s life not only for God, but for the Turkish nation and motherland.⁷ This martyrdom notion incorporates a nationalist dimension that “A martyr is a soldier who gives his life for the love of God in the performance of his duty to defend [his] motherland from an enemy attack.”⁸

In light of fighting’s sacredness, official military histories published with the General Staff’s imprimatur always categorize fallen Turkish soldiers as martyrs. Turkish enemies are listed as simply dead.

The Turkish military provides contemporary examples of the Islamic faith’s blending with secularism and nationalism, with clear emphasis on the latter two. The Turkish army is not without its Muslim critics, both within and outside the country. For the fundamentalists, Turkey’s armed forces have denigrated Islam by embracing Western values and ideologies. Turkish nationalists argue that they have merely adapted the Islamic faith to the modern world’s realities without necessarily polluting its spiritual and moral teachings.

Fundamentalism. Muslim fundamentalists stand at the opposite end of the spectrum. They believe in absolute religious and political unity. Everything must be under Islamic Law’s rule, as it was in Muhammad’s time in Medina. All state institutions must be clearly and unequivocally Islamic, including the armed forces. Wars must be conducted for ideological and cultural, not national, ends. These Holy Wars are waged against unbelievers and infidels. To ensure the state acts in conformity with Islamic teaching, religious experts must possess independent judicial powers and may even run the government. Two fundamentalist states are Saudi Arabia (Hanbali

Defence Today



Iranian “martyrs” shortly before a human-wave attack on Iraqi positions.

[The Iran–Iraq War] demonstrated Jihad’s rise and decline on the battlefield. . . . When invaded in 1980 by Iraq, Iran rallied behind its new regime, much as France did when invaded during its revolutionary upheaval. Iraqi soldiers encountered unexpected Iranian mettle and zeal, and in a relatively short time, the Khomeini regime mobilized society and invaded Iraq. . . . Eventually, [however] religious zeal ran its course as [the war’s] human costs became intolerable.

Sunnism) and Iran (Twelve–Imam Shiism). Admittedly, each regime has often attacked the other for “non–Islamic” policies.

In Iran, for example, state ideology depicts Ayatollah Ruhollah Khomeini’s triumph in February 1979 as an Islamic revolution that created a true Islamic state. Since then, Iran has been engaged in a global struggle against Western liberalism and Eastern communism. To wage that sacred struggle, Iran claims to have the only true “Army of God.” Its *raison d’être* is primarily religious—“The armed forces have the ideological mission of Jihad in the path of God.”⁹

The Khomeini regime depicted its war with Iraq as a cosmic struggle between good and evil where “You fight for the sake of God, and the Iraqis fight for the sake of Satan.”¹⁰ Khomeini spiritualized even the

smallest military action: "Every bullet you fire is due to the power of God"¹¹ Naturally, all Iranian soldiers were promised martyrdom and paradise if they fell in battle.¹²

To ensure ideological conformity, Khomeini gave political power to the Shiite clergy. With Iraq's invasion of Iran, war and politics were too sacred to be

With Christian incorporation into the armed forces, [some] religious authorities have extended the martyrdom notion to non-Muslims. [During the October 1973 War] the highest religious dignitary in Egypt declared that "al-Jihad is an obligation for all, without distinction between Muslims and Christians. It is the duty of all who live under the sky of Egypt, the motherland of all. . . . Being martyred for the sake of the motherland gives access to paradise. This is confirmed by divine laws that have been revealed to the People of the Book."

left to politicians or military commanders. For the armed forces, this meant officer and soldier religious indoctrination, clerical commissar assignment down to battalion level and appointment of Khomeini's special representatives to all major commands.

For the secularists, the Iranian Revolution only proves that religious fanaticism invariably emerges from religious and political union. Secularists demand Muslim clergy, who have no political power, function more like US Army chaplains. Other Muslims regard the Iranian Revolution as Islamic corruption, a faith gone astray owing to Khomeini's extremist teachings which, in the name of God, pitted Muslim against Muslim in battle.

Modernism. Muslim modernists hold the middle ground between secularists and fundamentalists. Refusing to endorse a rigid separation between religion and politics, the modernists also shun Islamic theocracy. Their legal system balances Islamic and natural law. Modernist appeals in war embrace Jihad, but the struggle takes on a more moderate, worldly tone. It is not the cosmic "God versus Satan," good versus evil or Islam versus unbelief struggle it tends to be with the fundamentalists. Patriotism and nationalism sometimes appear to hold greater sway than Islamic ideology. Egypt and Jordan are modernist states.

Egyptian military culture represents a complex blend of Egyptian patriotism, Arab nationalism and

Islamic ideology. The latter has been a regular cultural pulse in Egypt throughout the 20th century, with varying intensity and effectiveness. For instance, when France and Britain invaded Egypt in 1956, President Gamal Abdel Nasser readily went to the al-Azhar Mosque, where he rallied Egyptians to fight for Egypt with God's help and to embrace Jihad.¹³ In 1973, Egyptian soldiers again were called "to martyrdom in the way of the honor of the motherland."¹⁴ Those who fell in battle became martyrs, whereas their Israeli counterparts were counted as "killed."

In the 20th century, Egypt's armed forces have developed into a national, rather than Islamic, army. Compulsory national service for all Egyptians has resulted in drafting Coptic Christians (10 to 15 percent of the population) into the military. Because of their military service, Egyptian Christians no longer pay the poll tax. Moreover, small numbers of "Copts" have moved into responsible positions within the armed forces.

During the 1973 war, for example, Brigadier General Fuad Aziz Ghali, a Copt, commanded the 18th Infantry Division. Before the hostility's end, he commanded the Second Field Army and was promoted to major general. The Egyptian case parallels that of other, but not all, Arab countries. Where there is a sizable Christian minority, secularist and modernist armies have ceased to limit command or other responsible positions to Muslims. In Syria during the 1973 war, the General Staff chief and the operations deputy director were both Christians.

With Christian incorporation into the armed forces, religious authorities have extended the martyrdom notion to non-Muslims. On 12 October 1973, Shaykh al-Azhar 'Abd al-Halim Mahmud, the highest religious dignitary in Egypt, declared that "al-Jihad is an obligation for all, without distinction between Muslims and Christians. It is the duty of all who live under the sky of Egypt, the motherland of all. . . . Being martyred for the sake of the motherland gives access to paradise. This is confirmed by divine laws that have been revealed to the People of the Book."¹⁵ Many Muslims would not extend the honor of martyrdom to Christian soldiers who died on the battlefield, because these Christians supposedly fought for reasons other than Islamic faith.

The Christian integration into the armed forces reflects a moderate adaptation in Egypt's war practices. Egyptians have tended to depict their struggle with Israel in national and ideological, rather than religious, terms. In past wars, the Israelis were merely the enemy, not infidels; the threat was imperialism and Zionism, not unbelief or Satan.



Egyptian rangers during a field training exercise.

To ensure ideological conformity, Khomeini gave political power to the Shiite clergy. With Iraq's invasion of Iran, war and politics were too sacred to be left to politicians or military commanders. For the armed forces, this meant officer and soldier religious indoctrination, clerical commissar assignment down to battalion level and appointment of Khomeini's special representatives to all major commands.

Unlike the Iranian case, the Egyptians fielded a professional army that had prepared for war for more than six years. The army knew its strengths and weaknesses, and Egyptian General Staff officers understood the critical importance of planning, training and leadership. Most important, however, national will, coated with Islamic ideology, remained high to the end.

Jihad on the Battlefield

Morale is a very important ingredient in combat. Many Western military experts stress peer pressure—a fear of letting one's comrades down—as the ultimate battle motivator. Recent examples in the Middle East offer another perspective on combat motivation.

Iran-Iraq War. Iranian behavior in this war demonstrated Jihad's rise and decline on the battlefield. At first, many Iranians, caught up with the unpopular Pahlavi dynasty's overthrow, experienced new hope for revolution. When invaded in 1980 by Iraq, Iran rallied behind its new regime, much as France did when invaded during its revolutionary upheaval. Iraqi soldiers encountered unexpected Iranian mettle and zeal, and in a relatively short time, the Khomeini regime mobilized society and invaded Iraq.

During the war, thousands of Iranians in the Islamic Revolutionary Guard, inspired by revolutionary and Islamic zeal, participated in human wave assaults. To the Iraqis' dismay, the resultant carnage failed to deter the Guard. The Iranian regular army, however, considered such infantry assault tactics wasteful and unprofessional. Eventually, the

Guard's religious zeal ran its course as society's human costs became intolerable. The war eventually turned into Khomeini's personal vendetta.

War protests grew in intensity, with even Shiite clerics discouraging enlistment. In the war's last year, Iranian desertions and prisoners of war increased dramatically. Eventually, Khomeini ended the war to save the revolution. Hashemi Rafsanjani, the second most powerful man in Iran, later admitted that "All the moral teachings of the world are not very effective when war reaches a serious position."¹⁶ In the end, superior technology defeated religious elan, although the latter had its heyday.

Egypt and the 1973 war. Islam was a powerful motivator for the Egyptian armed forces in the 1973 war. After their disastrous defeat in 1967, Egyptian society and the military turned to Islam for solace and strength. During the 1967 to 1973 reconstruction period, the Egyptian High Command used Islam to develop pride, confidence, elan and a sense of mission in the armed forces. In 1968, Major General Muhammad Gamal al-Din Mahfouz, in charge of moral orientation, tersely summarized the new Islamic emphasis in the military: "Al-Jihad was to



Images of Kuwaiti civilians injured during the Iraqi invasion broadcast to Arab nations by Syrian National Television, 7 August 1990.

The first major blow to the [Iraqis' newfound] confidence was the invasion of Kuwait. The Iraqi armed forces, though battle experienced, were also war weary after fighting Iran for eight years. The rape of Kuwait, while enriching some Iraqis, no doubt also undermined military professionalism, discipline and morale. Negative world reaction to the invasion created isolation anguish and tarnished Hussein's legal claims to Kuwait.

be the fighting ideology of the army with 'victory or martyrdom' as the slogan and 'Allahu Akbar' as the battle cry."¹⁷

After the war, many Egyptians sincerely believed this new Islamic orientation partly explained their successes on the battlefield against Israel. The Israelis were certainly surprised by Egypt's new fighting capability. In discussing Israeli intelligence failures, General Ahmad Ismail Ali, Egypt's war minister and commander in chief, claimed the Israelis miscalculated the Islamic faith's power—demonstrated by *Allahu Akbar* cried out by Egyptian soldiers crossing the Suez Canal.¹⁸ Brigadier General Adil Yusri, commander, 112th Infantry Brigade, 16th Infantry Division, reinforced this view from a field commander's perspective when he noted that "The religious renaissance . . . had a clear impact on the inner life of the soldier and his readiness for combat."¹⁹

In effect, Egyptian patriotism, Arab nationalism and Islamic ideology combined to foster morale and a sense of mission during the 1973 war. Unlike the Iranian case, the Egyptians fielded a professional army that had prepared for war for more than six years. The army knew its strengths and weaknesses,

and Egyptian General Staff officers understood the critical importance of planning, training and leadership. Most important, however, national will, coated with Islamic ideology, remained high to the end. When Israeli Defense Forces tried to capture Suez City before a UN-sponsored cease-fire, both the religious leaders and the townspeople rallied at the Mosque of the Martyrs and helped the Egyptian military organize a defense that thwarted Israeli efforts to capture the town. Islamic faith proved a vital ingredient for a professional army and its society's will.²⁰

Operation Desert Storm.

During Operation *Desert Storm*, Baghdad called for a Jihad against "the assemblies of infidelity and polytheism . . . the forces of injustice, evil and world Judaism."²¹ Here was a secular regime employing Jihad as a fundamentalist regime would. According to Saddam Hussein, the struggle would be the "mother of

all battles" in which good would defeat evil. Hussein's appeals, however, fell on deaf ears. Even his own army failed to respond effectively and collapsed in the face of the coalition attack.

It appears the Iraqi loss of will resulted from a series of cumulative events. After the Iran-Iraq War concluded, Iraq appeared to be a country filled with new pride and hope. To those who visited Iraq, there was palpable pride in the ultimate victory over revolutionary Iran. Moreover, many Iraqis hoped for a better life based on the political liberalization Hussein promised immediately after the war's end.

The first major blow to the people's confidence was the invasion of Kuwait. The Iraqi armed forces, though battle experienced, were also war weary after fighting Iran for eight years. The rape of Kuwait, while enriching some Iraqis, no doubt also undermined military professionalism, discipline and morale. Negative world reaction to the invasion created isolation anguish and tarnished Hussein's legal claims to Kuwait.

The allies' 42-day bombing campaign proved devastating beyond any of Baghdad's prewar calculations. Morale plummeted in the face of mounting

physical destruction and increasing casualties without commensurate losses on the coalition side. Hussein's victory boasts left the armed forces and the country crippled and vulnerable to further devastation.

By the time the land campaign began, the Gulf War had turned into "Saddam's" war—just as the last years of the Iran–Iraq War had become Khomeini's struggle. Personal wars, when exposed, undermine any moral Jihad credibility and thus Hussein's calls for a Holy War eventually carried little weight. Without a threat to national survival or independence, the Iraqi army collapsed when surprised by General Norman Schwarzkopf's "Hail Mary" maneuver.

The Islamic *ummah* is not a monolithic community, even when it comes to understanding Jihad. Muslims agree on Greater and Lesser Jihads' concepts and martyrdom, but major differences exist concerning Holy War's use in the modern world. Discussion and application of Islamic tenets in warfare remain a unique and ongoing dynamic within each Middle East military and society. Therefore, Western analysts must critically study each case separately.

Why individuals risk their lives in battle remains a philosophical problem concerning human nature's essence. Muslim soldiers fighting with the Jihad spirit during this century argues against peer pressure as the sole explanation for their conduct. Even Kemal Ataturk, the Turkish hero at Gallipoli during World War I and the founder of the Turkish secular state, was impressed by the Islamic faith that drove Turk-

Muslim modernists hold the middle ground between secularists and fundamentalists. Refusing to endorse a rigid separation between religion and politics, the modernists also shun Islamic theocracy. Their legal system balances Islamic and natural law.

ish troops during that epic campaign. On 17 May 1915, Ataturk remarked that "He who can read prepares himself with the Quran for the next world. The illiterates storm with the call 'God, God.' This noble spirit allows us to win the battle."²² The Gallipoli campaign certainly left the Allies with a respect for the Turkish soldier but, perhaps, without a commensurate understanding of his inner motivation.

Muslim secularists, fundamentalists and modernists have many profound differences pertaining to Islam and war. Yet all three intellectual currents, with their differing appeals to soldiers, have regarded faith—a conviction in God, defense of country or some other ideal outside of self—as an important combat motivator. In this regard, the rich Islamic Jihad tradition continues to remain an important military ingredient in the Middle East. When treated as a "just war" tradition comparable to that in the West, Islamic teachings on Jihad should challenge Western societies and individuals to question their own motivation and conduct in war to see if they conform to humanity's highest ideals. **MR**

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6. Quran, 2:256.
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12. "Khomeini Speech on 26 September," *FBIS–MEA* (29 September 1980), 12.
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19. Adil Yusuf, *Rihla al-Saq al-Mu'allaqa: Min Ras al-Ush ila Ras al-Kubra* (Cairo: Dar al-Ma'rafa bi Misr, 1974), 67.
20. For a popular account of the battle for Suez City by an eyewitness, see Ahmad Ismail Subhi, *Ubur al-Mihna* (Cairo: al-Hal'a al-Misriyya al-Umma lil-Kitab, 1976), 119.
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Understanding Islamic Fundamentalism

Lieutenant Commander David G. Kibble, British Naval Reserve

ISLAM IS MENTIONED almost daily on television and in newspapers because of Muslim involvement in the Bosnian conflict. Islamic fundamentalism is also receiving a lot of attention. From a media perspective, rarely a week goes by without some report involving Middle East Muslim fundamentalists. One lasting image the Western world has of fundamentalist Islam is the hostage crisis in Iran, when bearded militants blasted the United States as the "Great Satan" and Ayatollah Ruhollah Khomeini was revered as the Islamic revolution's spiritual leader, while President Ronald Reagan and other Western leaders were denounced. On numerous occasions, Reagan's effigy was hung and burned in public, and the American flag was set on fire outside the US embassy in Tehran.

In 1979, Khomeini overthrew the Shah of Iran and established an Islamic republic. Khomeini declared from the holy city of Qom: "I will devote the remaining one or two years of my life to reshaping Iran in the image of Muhammad . . . by the purge of every vestige of Western culture from the land. We will amend the newspapers. We will amend the radio, the television, the cinema—all of these should follow the Islamic pattern. . . . What the nation wants is an Islamic republic. Not just a republic, not a democratic republic, not a democratic Islamic republic. Just an Islamic republic. Do not use the word 'democratic.' That is Western and we do not want it."¹

So the militant image was born as thousands of devoted young martyrs followed a religious leader into an intolerant theocracy. These throngs went willingly to the front against Iraq to sacrifice themselves in the name of Islam for their ayatollah. They all swore a simple oath entitling them to wear the crimson headband identifying them as *volunteers for*

martyrdom: "In the name of Allah the Avenger, and in the name of the Imam Khomeini, I swear on the Holy Book to perform my sacred duty as a Child of the Imam and Soldier of Islam in this Holy War to restore to this world the Light of Divine Justice."²

A more recent image of Islamic fundamentalism is one of Muslims in Britain and elsewhere angrily burning Salman Rushdie's book *Satanic Verses*. The public saw intolerance, fanaticism, hysteria and violence. They failed to understand the Muslim perspective. For Muslims, publishing a book considered to be blasphemous was intolerable and was an affront to their beliefs and personal and corporate identity.

A more recent Islamic fundamentalist image is Palestinian demonstrations against the Middle East peace process. What the West forgets is that Israel continues to defy UN authority by occupying the West Bank. The Islamic fundamentalists object to the Palestinian Liberation Organization (PLO) deal with Israel, which they see as acknowledging the Israeli occupation. Islamic militants believe the West Bank belongs to them—a belief upheld by the UN.

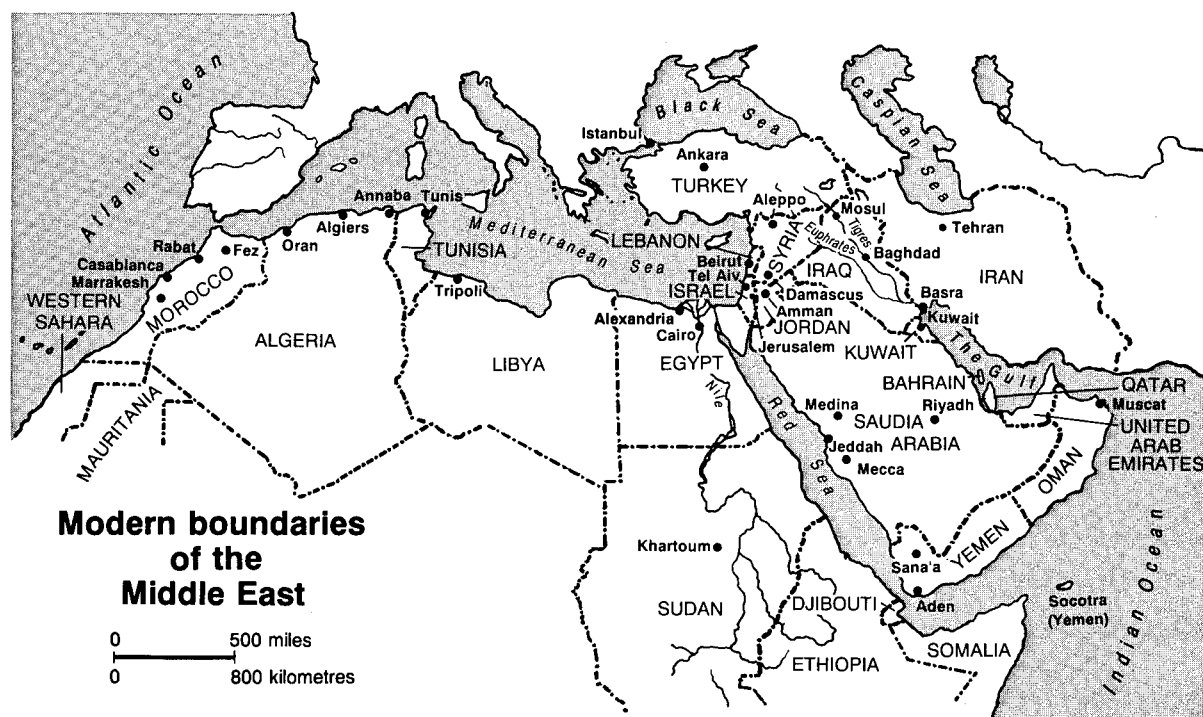
In 1994, Egyptian Islamic fundamentalists made headlines with terrorist attacks on tourist areas around Cairo. Many tourists were killed or injured; Information Minister Safwat Sherif's car was fired upon; and a deputy police chief was killed and an interior minister was wounded in a motorcade bomb blast.

The resulting Islamic fundamentalist picture is hardly appealing—fanatical, violent, intolerant, restrictive and anti-Western. Such characteristics almost ensure that any positive Islamic elements are neither seen nor heard. It is always an event's negative aspects that get the most media attention.

Understanding Fundamentalist Islam

Islam is not a monolithic whole. It is as diverse as the countries that compose the Middle East itself, as depicted in the map on page 41. Islam is divided into various groups, each with its own interpretation of the

The views expressed in this article are those of the author and do not purport to reflect the position of the Department of the Army, the Department of Defense or any other government office or agency.—Editor



Muslim holy book—the Quran—and the prophet Muhammad's sayings and deeds. One Islam division is between the modernists and revivalists. Modernist Muslims interpret their faith in terms of modern knowledge. They tend to accept Western scientific ideas—such as evolution—as well as the political ideal of democracy and women's emancipation. They interpret the Quran and Muslim tradition to accommodate their ideas. On the other hand, revivalists reject Western ideas and call for restoring *traditional* Islamic ideas. They believe in literal creation, accept the Quran as Allah's actual writings which should be followed as such, and press for an Islamic state based upon *Sharia*—Muslim law derived from the Quran and Muhammad's teachings. Revivalists are sometimes called fundamentalists because they wish to return to their faith's original tenets. Some suggest the term *fundamentalist* is misleading because it has Protestant overtones and is equated with political activism or militancy.³ Fundamentalism, in its militant Islamic sense, is just one variant of revivalism. Revivalism may also be a "quietist" type, which retains traditional religious beliefs but espouses a less politically active stance.

One can categorize various Muslim "types" based on where they stand on each of three axes. The first axis is religious. At one end is the modernist Muslim, who interprets the Quran based on modern knowledge. At the other end is the revivalist, who wishes to return to the fundamentals of faith and be

[Islam] is as diverse as the countries that compose the Middle East . . . [and] is divided into various groups, each with its own interpretation of the Muslim holy book—the Quran—and the prophet Muhammad's sayings and deeds. . . . Modernist Muslims interpret their faith in terms of modern knowledge . . . [while] revivalists reject Western ideas and call for restoring traditional Islamic ideas.

guided by the Quran's literal interpretation and Muhammad's teachings alone.

Next is the evangelical axis. At one end is the Muslim who believes his faith is a purely private affair, while at the other is the Muslim who believes Allah wants the whole world to become a Muslim state or series of states. The last axis is political. At one end is the nonactivist or quietist, while at the other is the Muslim who embraces terrorism as legitimate political action.

In religious axis terms, revivalists have increased in strength and number over recent years. Mosque attendance is up in many Muslim countries, religious media programs have proliferated, emphasis on traditional values and dress codes has increased and Islamic educational and welfare institutions have grown in number. While the Western media tends to

suggest that revivalism manifests itself only as Islamic politically active fundamentalism, a closer look reveals Islamic revivalism contributes much in education and welfare for the needy.

Welfare services among West Bank Palestinians have increased as revivalist Islam has grown. In Kafr Bara, revivalist leader Mayor Sheikh Kamal Rayan has developed a modern water distribution system; established a regular electricity supply; added four classrooms and toilet facilities to the village school; built a soccer field; paved alleyways and roads; built a cultural center; and set up a medical clinic that is open six days a week. Similar developments have occurred in other Palestinian villages under revivalist leaders who see social action as part of their religious duties outlined in the Quran.⁴ "Show kindness to both [your] parents and to near relatives, orphans, the needy, the neighbor who is related [to you] as well

While the Western media tends to suggest that revivalism manifests itself only as Islamic politically active fundamentalism, a closer look reveals Islamic revivalism contributes much in education and welfare for the needy. Welfare services among West Bank Palestinians have increased as revivalist Islam has grown . . . [and] similar developments have occurred in other Palestinian villages under revivalist leaders who see social action as part of their religious duties.

as the neighbor who is a stranger, and your companion by your side and the wayfarer, and anyone under your control."⁵

Islamic fundamentalism, as described by Western media, is only one aspect of Islamic revivalism, whose adherents would often decry terrorist acts as most Roman Catholics in Ulster reject the Irish Republican Army's (IRA's) atrocities.

What then are the reasons for the Muslim revivalist movement's increasing popularity? One is Israel's defeat of Egypt, Syria and Jordan in 1967. Many Muslims believe Allah allowed their defeat to demonstrate how far they had strayed from Islam's true path. Second, Muslims moving to urban areas found themselves confronted with 20th-century Western ideas and commercialism, which led to a sense of not belonging. This led them to turn to Islam's familiar roots. Additionally, many Middle Eastern rulers have legitimized themselves through Islam. Conversely, Islam has become a means by

which opposition may be felt and expressed.

Fundamentalist Islam recognizes diversity, especially between Muslims on the modernist-revivalist religious axis and the quietist-activist political axis. Fundamentalist portrayal has concentrated on those who are revivalists in religious temperament and political activists. In reality, many revivalist Muslims are quietists, who long for a society run according to Sharia and preach a return to traditional Muslim values. Revivalists seek to end what they see as the West's corrupting influence and preach political responsibility. The middle class in particular has accepted the revivalist outlook and implemented Islamic social welfare principles. For every revivalist Muslim who makes pronouncements such as, "The Quran commands: 'Wage war until all disobedience (of divine law) is wiped out!' . . . Once we have won the war (against Iraq) we shall turn to other wars. . . . The Quran commands: 'War unto victory,'" there are others who make more quietist-revivalist demands.⁶ "We are for peaceful change in society. Mainly, our aim is to educate people, to train people how to live their lives well in relation to religion."⁷

Understanding Revivalism

Islamic revivalism is here to stay and continues to gain footholds and influence in all societal classes throughout the Middle East. Revivalism is becoming the catalyst for many Muslims to return to traditional Islamic roots and disavow Western influence. In addition to the reasons already discussed for Islam's growing popularity, there are two others Western nations should heed: political oppression and corruption in some Middle Eastern areas and the feeling of continued Western manipulation of the region.

Author Gerald Butt suggests three major ways in which oppression and corruption occur in Middle East countries: prestige control, manipulation of the mind and repression. For example, Egyptian business law gives the prime minister authority to appoint the heads and senior officials of privatized companies. Company policy, therefore, is subservient to government policy. In many Arab countries, it is hard for an individual to succeed in business unless he has the existing bureaucracy's active cooperation to cut through red tape. Historian Said Aburish cites an Arabian province emir who demanded a payment of \$3 million from a Swedish building contractor's agents because the company was doing good business in "his territory."⁸

Second, there is mind manipulation. Arab education is often deficient because it relies on rote learning and memorizing rather than critical thought pro-

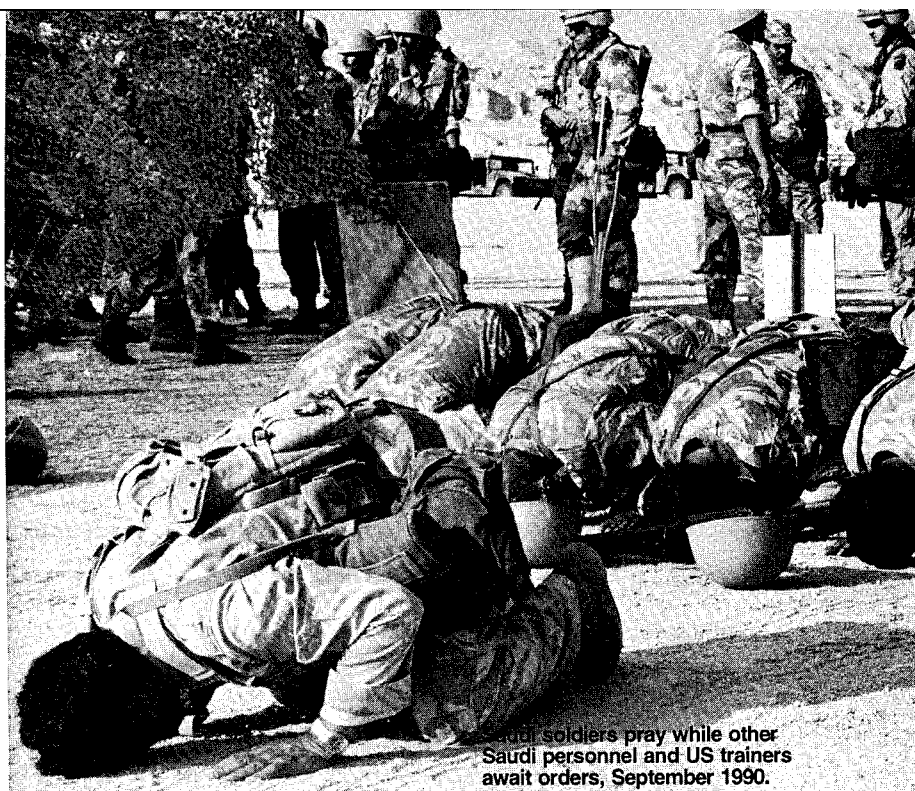
cess development. Throughout the Arab world, government controls the mass media—people see and hear only what the government wants them to. Arabs often hear about major events taking place on their doorstep from the Arabic language services of the British Broadcasting Corporation, Voice of America or Radio Monte Carlo.

Third, Middle Eastern rulers and governments often exercise what could be considered an unhealthy influence over the legal system, administrative procedures and security forces. Aburish cataloged several instances of justice “miscarriages” in the Saudi *Majlis*—the weekly royal courts held by the local minister.⁹

Aburish looks at much in Saudi Arabia that raises questions about the Saudi monarchy’s future. The ruling house of Saud is seen to be feathering its own nest rather than ruling the country for the people’s benefit. There are few democratic procedures except for a consultative council limited to discussing minor items as directed by the Saudi king. In addition, the country has been running up a budget deficit for 12 years. In 1994, the debt was calculated at approximately \$60 billion.¹⁰

Saudi Arabia’s defense expenditures are estimated at 36 percent of the country’s income. Unhappy with this and the fact that only 30 percent of the population attends school and the government has neglected to solve the water shortage problem, the country’s previously loyal and conservative religious council has issued an appeal for reform. The appeal, with 500 religious sheikhs’ signatures, deplores the corruption in the country and the lack of freedom. Increasingly, such revivalist groups are leading the call for change.

The West continues to deal with the Middle East in a way which is seen by many Arabs to be a manipulative and self-serving manner.¹¹ During the Iran-Iraq War, the United States supported and encouraged the Iraqis. Declassified documents show that in 1982, in addition to giving Iraq top secret intelligence information, Washington removed Iraq from its list of terrorist-supporting countries. In 1990, with the Iraqi invasion of Kuwait, the United States



Saudi soldiers pray while other Saudi personnel and US trainers await orders, September 1990.

Fundamentalist Islam recognizes diversity, especially between Muslims on the modernist–revivalist religious axis and the quietist–activist political axis. . . . For every revivalist Muslim who makes pronouncements such as, “The Quran commands: ‘Wage war until all disobedience (of divine law) is wiped out!’ . . . The Quran commands: ‘War unto victory,’” there are others who make more quietist–revivalist demands. “We are for peaceful change in society. Mainly, our aim is to educate people, to train people how to live their lives well in relation to religion.”

changed its tune. Having previously denied knowing Iraq was involved in terrorism, Secretary of State Lawrence Eagleburger described Iraq as “a country which repeatedly provided support for acts of international terrorism.”¹² Before the Kuwait invasion, the US State Department ignored Bureau of Human Rights’ findings indicating Iraq had consistently and grossly violated human rights and used chemical weapons against the Kurds.¹³

In 1992, New York-based *Middle East Watch*, a watchdog organization, pointed out that while the United States publicly demanded democratic reform in Cuba, Iraq, Kenya and elsewhere, it had “remained mute toward one of the most singularly undemocratic nations in the world, its longtime ally, Saudi Arabia. . . . Although the United States, by virtue of a long and intimate relationship with Saudi Arabia, has been in a position to help effect an improvement in its dismal human rights record, the US has rarely criticized Saudi violations.”¹⁴

Other Middle Eastern nations could be similarly criticized for their human rights records. Bahrainis

Revivalist Islamic groups in many countries are taking the lead in demanding reform and an end to corruption. They are taking the lead because the Quran and Muhammad's teachings demand reform. Muslims find it difficult to follow Muhammad's preaching to "... not squander [money] extravagantly" when their rulers spend extravagantly. Islam demands social justice and fair wealth distribution.

who do not support the emir's policies risk harsh penalties. Prisoners are subjected to torture and ill treatment, passports are confiscated and Bahrainis living abroad have had their return home blocked. Again, Western nations have not been forward in demanding reform implementation.

The West appears to selectively support Middle Eastern nations out of self-interest, particularly in terms of oil and defense contracts, while condemning other countries for poor human rights records. Palestinians resent the West for supporting the recent PLO-Israeli peace deal, which they feel denies them their entitlements under UN Security Council resolutions. It is alleged that while some UN resolutions were conveniently forgotten, those condemning the Iraqi invasion were widely publicized and enforced because it suited the West. Western policy is often not about human rights issues at all, but about economic self-interests.

Against this backdrop, it is obvious why many Middle Easterners want reform and the elimination of autocracy and oppression. They want a free press and institutions unfettered by red tape and domination by members of ruling families. Revivalist Islamic groups in many countries are taking the lead in demanding reform and an end to corruption. They are taking the lead because the Quran and Muhammad's teachings demand reform. Muslims find it difficult to follow Muhammad's preaching to "... not squander [money] extravagantly" when their rulers spend extravagantly.¹⁵ Islam demands social justice and fair wealth distribution.

Precisely what Islam demands beyond Sharia implementation is open to interpretation and debate. Some revivalist groups follow the Khomeini line, denouncing democracy and monarchy, claiming both are antithetical to Allah's rule. Others argue that once Sharia is implemented, there is room for democracy within Islamic law through the Muslim principle of *Ijma*. *Ijma* is a religious leader consensus outlining

who may decide courses of action within the tenets set forth in the Quran and Muhammad's teachings.¹⁶ Many other revivalist differences of opinion exist. Some support terrorism, but many do not.

Differences of opinion are widespread among Palestinian revivalists concerning the Arab-Israeli issue. Some revivalists, including Sheikh Abdallah, advocate a Palestinian state in the West Bank and Gaza alongside Israel. However, he urges his followers to operate within the law to achieve this goal. On the other hand, the *Hamas* movement is committed to *Jihad*, believing Palestine is a holy, non-negotiable endowment. Therefore, all negotiations, peaceful settlements, political bargaining and conferences are rejected. Israelis liken revivalist movements within their country to a patchwork quilt—made up of many different groups with differing ideas and no united front.

Despite opinion differences, it is the Islamic revivalist movement that provides much impetus for reform in many Middle East areas. If the revivalists' demands are right and just, the West should begin to have more constructive dialogue with these groups.

The Future

Many Middle East countries' futures are uncertain. Iran has already taken one path of revivalist Islamic revolution and is developing its own independent political program. Some groups within the country, however, are pursuing an activist role by funding various terrorist organizations, including the IRA.

In 1991, Algeria held its first general elections, giving an unprecedented victory to the Islamic Salvation Front, an Islamic revivalist party. However, the Algerian army pressured the president to resign, replacing him with a temporary seven-member high executive council led by Defense Minister General Khaled Nazzar. Democracy was aborted when it put Islamic revivalists into power. Algeria's Islamic revivalists are currently waging a virtual guerrilla war against the establishment. The Christmas Eve hijacking of an Air France airliner by the Armed Islamic Group was such an action. The country's future is uncertain and it is not entirely clear how much support the terrorists have among the general population, nor is it clear if these calls for Islamic reform are genuine.

The social and economic problems facing President Hosni Mubarak's Egyptian government only add to Islamic revivalism's appeal. Only time will tell whether Islamic politics' popular appeal will peacefully or forcibly bring an Islamic regime to power.

What would happen if Islamic revivalist groups

seized power in Saudi Arabia? Would 1950s Eisenhower Doctrine guaranteeing the country's security from both internal and external threats call for US troops to restore Saudi rule? Current Western attitudes might support this possibility, but would such action be right and just and serve the West's short-term interests?¹⁷ This question and others like it must be considered in the not-too-distant future.

The current political regimes in power in Algeria, Egypt and Saudi Arabia are subject to open criticism and attack from popular revivalist groups that could possibly win democratic elections if they were held. Iran would be delighted to see "brother" Islamic groups in power in these countries and would certainly encourage them to follow policies similar to their own. Suggestions have been made that Iran has been funding Islamic activist groups in some Middle East countries in an attempt to destabilize them. The Central Intelligence Agency has reported its concern that Iran may possess nuclear weapons by the year 2000 and has threatened to give a nuclear device to terrorist groups supporting the revivalist ideal.

Understanding Islamic revivalism is vital in dealing with a 21st-century Middle East. The terrorist "end" of Islamic revivalism must be rejected, but many Muslims are turning back to their faith to attempt to move away from unjust, oppressive regimes. My argument is this: Any policy which allows Middle East governments to remain corrupt and oppressive, does nothing to exert a positive influence on human rights and does little to remove such regimes, is poor policy. Consequently, if we established some form of

dialogue with these Islamic groups, their view of Westerners might change. As Middle East governments attempt to transition to democracy, Western encouragement toward such progress—political freedom—should remain high on our collective agendas.

Alarmist scenarios depicting the West being deprived of oil by an Iranian-dominated Middle East and held to economic ransom are certainly possible but not necessarily probable. Author Geoffrey Till suggests Iranian fundamentalism is actually more likely to divide rather than unite Arab nations. He argues that the "patchwork" nature of Islamic revivalist groups will render their evolution into a single entity unlikely. On the other hand, he suggests that Islamic revivalism of a politically active type "will continue and may remain the highest motivating factor for extreme terrorist movements."¹⁸

If we develop better relationships with Islamic groups now, then such scenarios will become less likely. We might have to eventually forego lucrative defense contracts, such as the massive British Yamama 2 contract with Saudi Arabia, but if that is the price we must pay for promoting human rights, justice and democratic reform, so be it.¹⁹

In the much longer term, I do not believe time will permit a political system to continue when it is grounded in Middle Age beliefs and practices. Revivalist Islam will not flourish forever as it does now. Further exposure to Western ideals and modernity will eventually mean that some Islamic revivalistic beliefs will change the way Muslims worship Allah. *MR*

NOTES

1. John Laffin, *The Dagger of Islam* (London: Sphere, 1979), 125.
2. Amir Taheri, *Holy Terror* (London: Hutchinson, 1987), 113.
3. John L. Esposito, *The Islamic Threat: Myth or Reality?* (New York: Oxford University Press, Inc., 1992), 7-8.
4. Raphael Israeli, *Muslim Fundamentalism in Israel* (London: Brassey's [United Kingdom], Inc., 1993), 121. Israeli notes that more and more new revivalist leaders are stressing the need for social action rather than conformity of religious belief.
5. Quran, *Woman*, 4:36.
6. Taheri, 20.
7. Gerald Butt, *A Rock and a Hard Place: The Origins of Arab-Western Conflict in the Middle East* (London: HarperCollins Publishers, 1994), 269.
8. Said K. Aburish, *The Rise, Corruption and Coming Fall of the House of Saud* (London: Bloomsbury, 1994), 83.
9. *Ibid.*, 85-86.
10. *Ibid.*, 303.
11. *The (London) Sunday Times* (7 August 1994), 17. Similar criticism could, of course, be leveled at Saudi Arabia. Afraid of the democratic movements in neighboring countries, the Saudis have supported the Hadramout separatist movement in Yemen. A recent report indicated that Saudi Arabia hired MiG-29 fighters flown by Russian air force pilots to fight in the Yemen civil war.
12. *The Washington Post* (8 June 1992).

13. *The Guardian* (8 June 1992).
14. "Middle East Watch," *Empty Reforms: Saudi Arabia's New Basic Laws*, edited by the Middle East Watch staff (New York: Human Rights Watch, 1992).
15. Quran, *The Night Journey*, 17:26-27.
16. A. R. I. Doi, *Sharia: The Islamic Law* (London: Ta Ha, 1984), 17. *Ijma* must itself be informed by the process of *Shura* (consultation of the people). "On this basis, consultation among Muslims is an important pillar of the beautiful and elaborate building of the Islamic way of life. To do any collective work without prior mutual consultation is not only a way of the ignorant but is also a clear defiance of the regulation laid down by Allah."
17. *The (London) Sunday Times* (28 August 1994), 17. It has been suggested that by granting political asylum to Mohammed Khilewi, Arabian first secretary to the UN, the United States has sent the House of Saud a warning that the nature of its political support may be changing. Khilewi asked for asylum, claiming human rights abuses in Saudi Arabia and corruption by the house of Saud.
18. F. A. Khavari, *Oil and Islam: The Ticking Bomb* (Malibu: Roundtable, 1990); and Geoffrey Till, "The State of the World in 2010," *The (British) Naval Review* (Volume 81, 1993), 301.
19. Aburish, 201-8. The Yamama 2 contract is valued at \$60 to \$150 billion, providing orders for British Aerospace, Westland Helicopters, GEC, Vospers, Plessey, Rolls Royce and other British firms. Aburish questions whether Saudi Arabia actually needs so much defense equipment and whether it will be able to use it.

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Iraqi Strategy During the Gulf War An Alternative Viewpoint

Captain J. D. McKillip, Canadian Army

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SINCE THE END of the Gulf War, there have been various studies on the war's aspects. Most studies deal with the war after coalition forces began Operation *Desert Storm* with aerial bombardment on 16 January 1991 and generally consist of two types. The first may best be described as "cheer-leading" studies and are generally uncritical descriptions of the coalition's—especially the United States'—technical and tactical successes. These studies serve little purpose other than to provide large volumes of anecdotal evidence that may be useful to students.

The second study has generally been done by "interested" parties and tends to focus on coalition policy, strategy, tactics and doctrinal validation, especially the technological advances used. These studies, combined with the Iraqi military rout, have had a dangerous effect on Western military thought. The quick victory has clouded military operational analysis and has allowed many to ignore the political circumstances that led to the crisis in the first place. As British Prime Minister Winston Churchill said, "Success mitigates a multitude of sins." There has yet to be an overall critical analysis of the event which culminated in Operation *Desert Storm* and, which, some suggest, has not entirely played itself out. One notable exception is Robert Leonhard's book *The Art of Maneuver*, but even that is narrowly focussed on the operation's military aspects and then only from the American point of view.¹

History teaches us that a narrow, one-sided analysis of events and results is extremely misleading. Coalition force combat power was so tremendously weighted against the Iraqis that the combat results were never in doubt. Extremely low coalition casualties were a pleasant surprise, but the final result was a

foregone conclusion. Nevertheless, there has been a strong tendency to dismiss or underrate Iraq's overall strategy solely on the war's one-sided results.

Iraqi Strategy Development

Documentation suggests that Iraq had a clear and sound national strategy, supported by a consistent and logical operational strategy. After its initial, although "incorrect," estimate that the United States would not intervene in a regional conflict involving only Iraq and Kuwait, Iraq conducted operations that were both consistent with its foreign policy goals and the military realities of confronting the coalition opposing them.

Fundamental to understanding Iraqi strategy is acknowledgment that Iraq had no intention of fighting a war to retain Kuwait. For many years, the Iraqis had been hinting to the world that they were going to take action against Kuwait. It is beyond this article's scope to discuss the reasons why Iraq invaded Kuwait, but it is sufficient to say that the Iraqi position with respect to its dispute with Kuwait was not universally dismissed as unfounded. The annexation of Kuwait offered many advantages to Iraq and there was an arguable historical basis for its claim to Kuwait.

Iraqi national strategy was based on the assumption the international community would condemn and then accept the annexation. To validate its key assumption—there would be no international military action against it—Iraq embarked on a systematic and accelerated process of telling the world its intentions. These warnings were followed by diplomatic efforts to gauge the international community's reaction. Examples of these efforts abound. For instance, throughout 1989 Iraq used every Organization of Petroleum Exporting Countries (OPEC) meeting to warn the organization that member states, especially Kuwait, were hurting Iraq's economy by overproducing oil and, consequently, driving down prices. At the January 1990 meeting, Iraq warned that "The oil

The views expressed in this article are those of the author and do not purport to reflect the position of the Department of the Army, the Department of Defense or any other government office or agency.—Editor

quota violators have stabbed Iraq with a poison dagger. Iraqis will not forget the saying that cutting necks is better than cutting means of living. O God Almighty, be witness that we have warned them."² This strong language was repeated on many occasions.

When OPEC failed to find a way to force compliance with already agreed-to oil production quotas, Iraqi Foreign Minister Tariq Aziz announced to an Arab League general meeting on 16 July 1990 that "Our country will not kneel."³ The following day, the US Embassy in Baghdad reported the announcements to the State Department but made no mention or suggestion of any impending action.⁴ On 18 July 1990, Aziz read a letter in Arabic and English on Iraqi radio to the Arab League accusing Kuwait of "systematically, deliberately and continuously harming Iraq by encroaching on its territory, stealing its oil and destroying its economy. Such behavior amounts to military aggression."⁵

With clear warnings such as these being sent out in unmistakable diplomatic language, it was not long before the US press directly asked the question that Saddam Hussein had been asking indirectly. At a State Department press conference on 24 July 1990, a reporter asked US State Department spokeswoman Margaret Tutwiler, "Do you know if the United States has any commitments to defend Kuwait or to assist it against aggression?" Tutwiler's answer, read from a prepared text and delivered in a very deliberate and measured tone, was: "We do not have any defense treaties with Kuwait and there are no special defense or security commitments to Kuwait."⁶ On 25 July 1990, Hussein summoned the US Ambassador to Iraq, April Glaspie, who told him that "We have no opinion on Arab-Arab conflicts, like your border disagreement with Kuwait." She added that President George Bush sought "... better and deeper ties with Iraq."⁷ Having thus validated his estimate of international reaction to his intended actions, Hussein gave his military forces the go-ahead to invade and occupy Kuwait.

It is interesting to compare Hussein's strategic decision in 1980 to invade Iran with his decision to invade Kuwait. In his situation estimate with respect to Iran, he concluded the world community would not intervene, and this proved correct. His difficulties in Iran were that he underestimated the latent power Iran possessed and ended up fighting a costly eight-year war. Iraq's ultimate goal—to gain ascendancy in the Arab world—was successful. Although badly damaged and in tremendous debt, Iraq had become the Arab leader against Iran's fundamentalist threat. Additionally, Iraq ended the war with the most powerful regional army in the world. It was this posi-

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tion of power that allowed Iraq to contemplate, and finally attempt, to annex Kuwait.

The Invasion

Iraqi's Kuwait invasion was effected as a *coup-de-main* operation and was completely successful. As the coalition would later pit overwhelming forces against an inferior enemy, the Iraqis committed overwhelming force to the operation against Kuwait. Once Kuwait was occupied, a large defensive force was deployed along the Kuwait-Iraq-Saudi border to ensure that interference in Kuwait's annexation was not possible. The resulting allied force deployment to Saudi Arabia was a surprise to Iraq. The force level committed was completely out of proportion to the "face-saving" level Iraq expected to see as a reaction to the invasion. However, once Iraqi forces were committed, Iraq could not expand its initial gains into Saudi Arabia. It is clear that Iraq had no intention of attacking the Saudis and, even as late as 6 August 1990, was taking pains to ensure the United States understood its intentions. Four days after the invasion, Hussein met with American *Charge d'affaires* Joseph C. Wilson to assure him that Iraqi actions did not constitute a threat to either Saudi Arabia or "vital US interests" and he considered "Baghdad's relationship with Washington was unchanged." Iraq knew it could not realistically expect to win a war against the coalition. Its strategy now was to respond to an unexpectedly hostile international community. Hussein had to face the political consequences of his actions.

Iraqi Diplomacy

Iraqi strategy now focussed on finding a diplomatic solution to the confrontation while attempting to maximize the utility of Iraqi forces already committed. This had to be accomplished at least risk to overall force integrity, with a view to maintaining

the existing government. Having passed the point of no return, it became imperative that Iraq demonstrate its political resolve in the face of international condemnation. Since Hussein first came to



The use of foreign nationals living in Iraq as "human shields" and their subsequent release long before there was any apparent reason compelling Hussein to let them go has perplexed many observers. From a deterrent strategy context, these actions can be explained. ... When it became apparent this attempt at extortion was not going to work and that their presence in Iraq was inflaming international opinion, the hostages were released.

power, a primary goal was to establish Iraq as the Arab world's leader.

As previously discussed, even his expensive war with Iran had, in many ways, advanced this cause. It was simply not possible for Iraq to withdraw from Kuwait without abandoning the reputation that Hussein had worked all his life to acquire. *Saddam*, in Arabic, means "the one who confronts," and Hussein had no intention of backing down in the face of international censure. For him, it was much better to be militarily defeated than to give in without a fight. No matter what the war's outcome, as long as his country was still intact and he remained in power, Hussein could claim he had confronted the "infidels" in a heroic struggle and only the world's assembled might could defeat him. These imperatives defined Iraqi strategy, and Iraqi actions are more easily understood in this context.

Iraq's strategy after invading Kuwait became evident when its army stopped on the Iraq-Kuwait-Saudi border. If Iraq had intended to press its attack into Saudi Arabia and the United Arab Emirates,

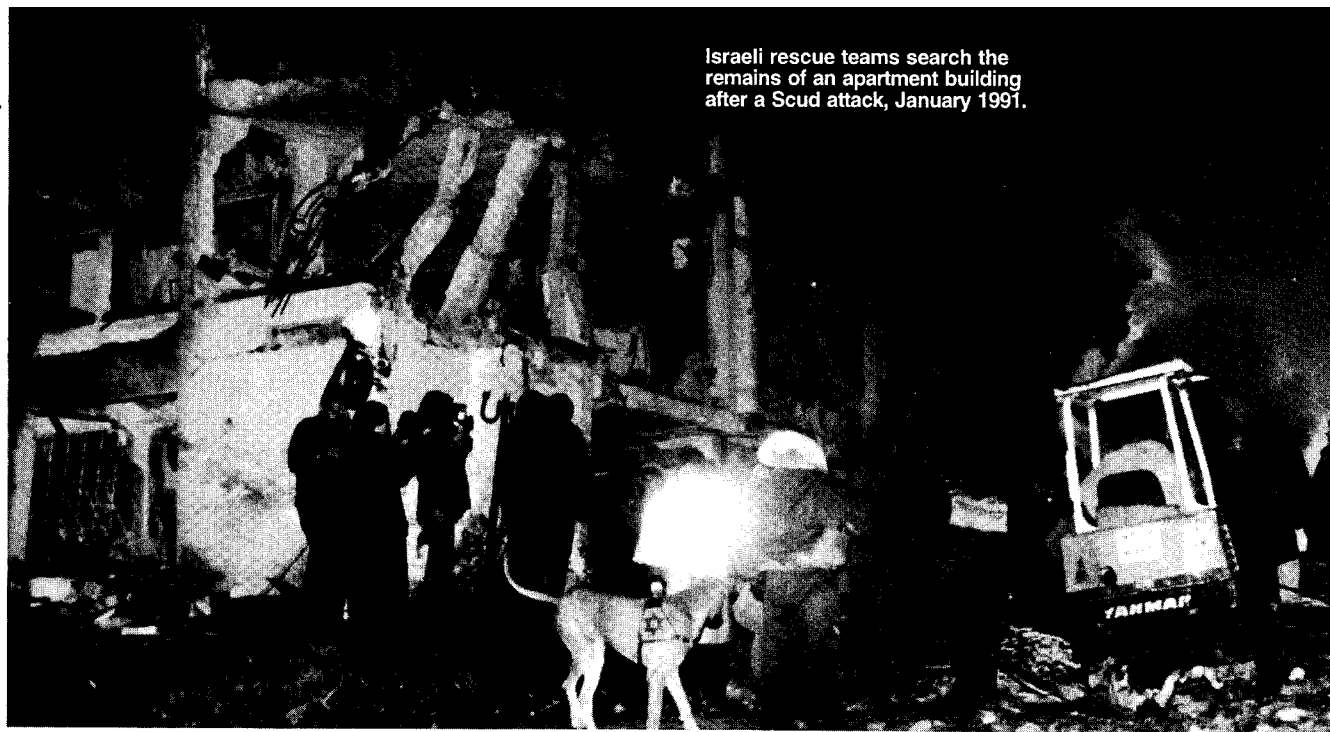
Hussein would have done it immediately while there was no one there to stop him. Instead, the Iraqi army dug in along the old border and replaced the front-line Republican Guards with second-class, less-mobile army units. Many US leaders interpreted Iraq's movements as a reaction to their threats. It is more likely, however, that the Iraqi army was simply conforming to its overall strategy.⁹ US authorities still had not correctly appraised the situation and continued to misread Iraqi strategy and intentions.

Quality Iraqi army units were withdrawn back into Iraq to ensure their preservation and, as a consequence, the preservation of Hussein's power base. Simultaneously, a very large second-rate army was deployed into Kuwaiti territory to give the appearance of a formidable defensive capability and to provide a credible deterrent to any US and coalition force action. This strategy proved completely successful at the outset. Coalition forces prepared for the worst possible scenario, making it impossible for them to even consider an early resolution to the confrontation. Eventually, 200,000 soldiers were deployed to Saudi Arabia ostensibly to satisfy the coalition's perceived defensive requirements. In reality, the Iraqi army was only capable of limited defensive action, but its movements served the higher purpose of strategic deception to "bluff" the coalition into inaction.

Limited Iraqi army offensive actions, such as the action at Al Khafji, strengthened the impression that Iraqi forces were neither beaten by air and artillery bombardment, nor were they combat incapable. Again, the action was completely successful as considerable effort was expended to counter these limited, but strategically significant, Iraqi moves. The impression of a powerful opponent was confirmed in the minds of many media representatives and, consequently, the public at large. Hussein's goal—to avoid a real war with the coalition—though unsuccessful, was well supported by these moves. The Iraqi perception of a weakening resolve in the Western public confirmed its strategy and Hussein took similar actions. Media speculation on potential casualties resulting from any attempt to dislodge the Iraqi army from Kuwait—aided by many ex-military officers acting as military consultants—was a direct and, from the Iraqi perspective, much hoped-for, result of Iraqi actions.

Iraqi leaders knew if battle was joined, their forces deployed in Kuwait would be defeated. It was also clear to them that it would be impossible to maneuver their forces without being destroyed by overwhelming and unchallenged coalition air power. The only reasonable operational strategy was to keep

Israeli rescue teams search the remains of an apartment building after a Scud attack, January 1991.



A striking example of Iraqi strategic conception is the manner in which a limited utility weapon—the Scud missile—was manipulated to such great success, both militarily and politically. . . . Although [they] were not likely to hit [specific] military targets, they were quite capable against cities. . . . Hussein [also] knew that no matter how much he was hated, the Arab world hated Israel even more. If he could get Israel to attack him, it was quite possible that some Arab coalition members would withdraw. By launching a few Scuds at Israel, Iraq came very close to accomplishing militarily what it had been unable to do diplomatically.

high-value Iraqi forces away from the main battle area to preserve them, while structuring forces in-theater into a high defensive posture. This action contributed to the appearance of strength and offered a potential political negotiation tool to avoid war. That no significant numbers of prisoners were taken until the main defensive area was penetrated is a testament to the difficulty of conducting war at arm's length—the elusive dream of winning by bombing and shelling alone—and to the average Iraqi soldier's determination to resist until a result became clear. Iraqi deployments suggest the Iraqi army was poorly deployed to counter coalition forces. What many fail to recognize, as the Iraqi army so clearly did, is that it would have been virtually impossible for Iraq to conduct any serious operation beyond simple defense in the face of coalition power. In many respects, the Kuwait-based Iraqi army was deployed as a fortress garrison under siege.

Specific Actions

A striking example of Iraqi strategic conception is the manner in which a limited utility weapon—the Scud missile—was manipulated to such great success, both militarily and politically. Western experts quickly pointed out the Scud's limitations and its inability to influence the battlefield, and they did so

with amazing consistency throughout the weeks when the missiles flew. Although the *Al Husseins* (Iraqi-improved Scuds) were not likely to hit military targets, they were quite capable against cities. In fact, by targeting cities, the missile's weaknesses could be turned into strengths by making it virtually impossible for the coalition to defend the numerous available targets.

More important, Iraq had a weapon that could potentially split the coalition by provoking Israel into joining the war. Hussein knew that no matter how much he was hated, the Arab world hated Israel even more. If he could get Israel to attack him, it was quite possible that some Arab coalition members would withdraw. By launching a few Scuds at Israel, Iraq came very close to accomplishing militarily what it had been unable to do diplomatically. It was only through great diplomacy that the United States was able to maintain the shaky alliance that had been so painstakingly assembled.

Even in strict military terms, Scud attacks were tremendously successful. Because of their damage potential to the coalition, the reaction to the missile attacks was immediate and massive. Missile launcher targeting became a key function of coalition air forces. For the cost of a few "limited value" missiles, Iraq diverted approximately 20 percent of



A UN inspector at an Iraqi air base examines a mustard gas bomb with a sonar-resonance system, October 1991.

Why did Iraq not use its chemical weapons? . . . If Iraq's strategy was to be consistent, then it could not use chemical weapons. Its national strategy was based on its need to survive as a state and for the governmental structure and its supporting apparatus to survive intact. Chemical weapon use did not offer the hope of victory, only the possibility to advance certain elements of national or operational strategy.

coalition air assets at the air campaign's height.¹⁰ Tremendous efforts were made throughout the war to destroy the Scuds, but these efforts were never completely successful. As an economy of force operation, Iraq's efforts were truly remarkable. The strategy's failure to achieve Iraq's desired aim does not negate its validity, particularly in view of the lack of any real strategic alternatives.

The limited Iraqi troop strength in Kuwait at any one time provides compelling evidence that it had no intention of attacking Saudi Arabia. Iraqi troop deployment served as a credible deterrent to any outside intervention. As discussed, Iraq originally invaded Kuwait with approximately 200,000 men.¹¹ By 14 September 1990, Iraqi forces were reduced to approximately 155,000 men, and high-quality units, such as the Republican Guards, were no longer in Kuwait.¹² As coalition strength grew, so did Iraqi numerical strength in Kuwait. Although the coalition continued to build up its defensive force in Saudi Arabia based on a perceived increasing Iraqi threat, the Iraqi threat was actually diminishing, not increasing. It was not until President Bush announced an increase of US troop strength on 8 November 1990 from 230,000 that Iraq substantially increased its

own strength.¹³ A 19 November announcement that the coalition would increase its force by 250,000 men simply indicated the need for Iraq to maintain a credible deterrence.¹⁴ Iraqi forces in Kuwait peaked at about 545,000.¹⁵

The use of foreign nationals living in Iraq as "human shields" and their subsequent release long before there was any apparent reason compelling Hussein to let them go has perplexed many observers. From a deterrent strategy context, these actions can be explained. Iraq hoped that coalition nations would feel pressure to find a settlement to the crisis with the consequent hostage release. When it became apparent this attempt at extortion was not going to work and that their presence in Iraq was inflaming international opinion, the hostages were released.

Other bizarre and irrational events, such as spilling oil into the Persian Gulf, were based on deterring attack through demonstrating ruthless determination to use any and all means at Iraq's disposal to fight for Kuwait.

Even this demonstration of resolve had its limits. The biggest question remains: Why did Iraq not use its chemical weapons against either the coalition or Israel? If Iraq's strategy was to be consistent, then it could not use chemical weapons. Its national strategy was based on its need to survive as a state and for the governmental structure and its supporting apparatus to survive intact. Chemical weapon use did not offer the hope of victory, only the possibility to advance certain elements of national or operational strategy. For such a gain, the risks were simply too great. Few believed Iraq's expulsion from Kuwait would end Hussein's reign, though many hoped it would. For Iraq, the ultimate deterrent was massive retaliation by the United States or Israel. Nuclear threats were openly discussed—it is clear this was a line Hussein was not prepared to cross.

While there are numerous Iraqi strategy manifestations, perhaps the most compelling is the Iraqi army's conduct once the ground war began. Within 6 hours of initial coalition ground moves, Iraqi forces destroyed Kuwait City's water supply facilities, clearly demonstrating an Iraqi "scorched-earth" withdrawal plan to be executed at the first sign of a real invasion. Army units either remained in place or fled north to escape. Clearly, Iraqi leaders knew that once the ground war began, the end would be near. They were obviously prepared to withdraw as soon as it was clear the coalition would actually attack. Iraqi forces were determined not to give in without at least the appearance of a fight and were determined to make the coalition commit itself to a ground war. The speed with which the operation

unfolded was, no doubt, a shock to Iraq but did not fundamentally alter the circumstances in which it framed national and operational strategies.

The Aftermath

Once the ground war began, events quickly unfolded in the only way possible. Iraqi military forces were forced to withdraw from Kuwait and suffered tremendous damage in the process. The Kuwaiti government was restored, and the Gulf region's situation was returned, in general terms, to the situation of 1 August 1990. Both Kuwait and Iraq had suffered huge losses in human and material terms, and the coalition had expended enormous resources to liberate Kuwait. The coalition, through the United States, proclaimed the beginning of a "new world order," and the stage was set for transforming the "balance of power" and international conflict resolution in the future. Expectations soared and it was not long before observers were speculating about using similar "peacemaking" methods to maintain world order in the future. Whether or not physical and political conditions would allow repetition of the effort made against Iraq remains a key question.

Hussein had begun this war as an Arab world leadership contender and as head of the most powerful nation in the region after Israel. He had embarked on a bold attempt to strengthen his position but was frustrated by the international community's reaction. Nonetheless, Hussein remains in power and possesses a powerful regional armed force. Postwar uprisings against his leadership were quickly crushed by the damaged, but largely intact, Republican Guards, and opposition to Iraqi leadership was rapidly and ruthlessly eliminated.

Although bowed, Iraq was not broken. By resisting the coalition's demands and standing up to the United

Iraqi leaders knew that once the ground war began, the end would be near. They were obviously prepared to withdraw as soon as it was clear the coalition would actually attack.

Iraqi forces were determined not to give in without at least the appearance of a fight and were determined to make the coalition commit itself to a ground war. The speed with which the operation unfolded was, no doubt, a shock to Iraq but did not fundamentally alter the circumstances in which it framed national and operational strategies.

States in a seemingly impossible situation, Hussein enhanced his status as "the one who confronts." In spite of all the power arrayed against Iraq and at Hussein personally, he survived. He has claimed he was the only leader willing to stand up for Arabs against the rest of the world and that Iraq still represents the best and only hope for Arabs to shake off their dependence on, and subservience to, the West.

Iraq began a sequence of events that ultimately led to its defeat in a war against a 26-nation coalition that amassed the most powerful, technologically advanced military in the world. However, Hussein's original premise was based on the assumption the coalition would never actually fight. Even though this assumption proved incorrect, and in the face of an ill-defined and ever-changing coalition strategy, Iraq was still able to define and pursue a consistent, logical and feasible national strategy and support it with a correspondingly limited operational strategy to give it the best possible chance for success and, in the event of defeat, the best possible chance for the regime's survival. **MR**

NOTES

1. Robert Leonhard, *The Art of Maneuver* (Novato, CA: Presidio Press, 1992).
2. Elaine Sciolino, *The Outlaw State* (New York: John Wiley & Sons, Inc., 1991).
3. *Ibid.*
4. *Ibid.*
5. *Ibid.*
6. CNN, "Operation Desert Storm—The Victory," 1991.
7. Bruce Watson, Bruce George, Peter Tsouras and B. L. Cyr, *Military Lessons of The Gulf War* (London: Greenhill Books, 1991).
8. GEN H. Norman Schwarzkopf, *It Doesn't Take a Hero* (New York: Bantam Books, Inc., 1991). The author demonstrates, rather clearly, the panic reaction he and other US military and civilian authorities had to the invasion of Kuwait. Although any reasonable and objective assessment of Iraqi intentions, including many done by US agencies before the invasion, indicated Iraq had no intention of invading Saudi Arabia, Schwarzkopf states, "The conquest of Kuwait had taken less than three days and it looked as if the Iraqis were not planning to stop there."
9. *Ibid.* Oddly, Schwarzkopf seemed astounded that on 21 August 1990, the Iraqi Republican Guard units were pulling back from forward areas to their own strategic depth

along the old Kuwait-Iraq border. Despite the fact the Guard units were replaced by other Iraqi army units, Schwarzkopf's assessment of the situation was that "it seemed like the Iraqis had blinked and that, for the first time, the likelihood of an immediate invasion [of Saudi Arabia] had decreased."

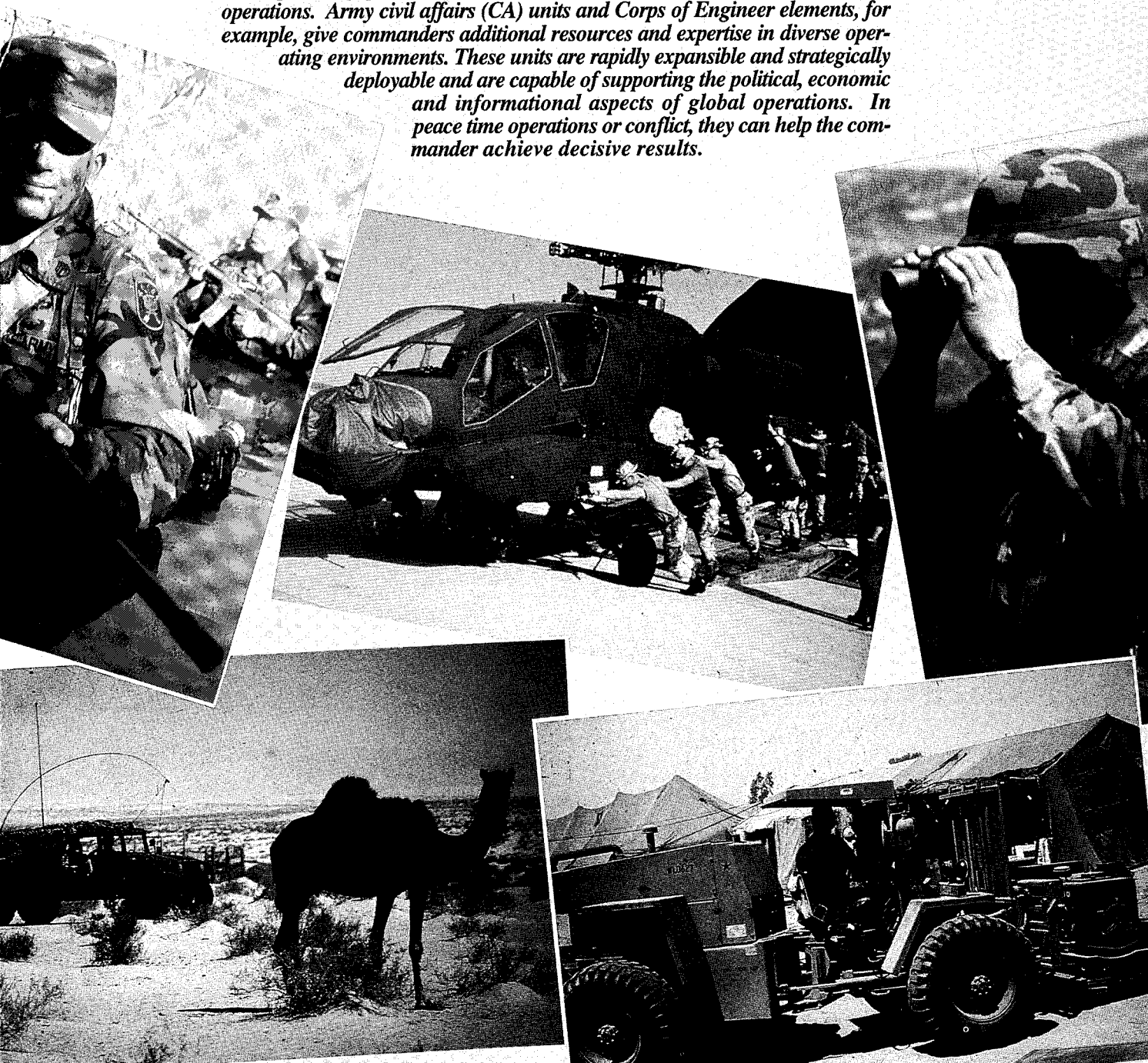
10. This was accomplished in the context of an air campaign that would prove spectacular but fell far short of air power promoters' initial expectations. During the initial planning for Operation Desert Storm, Schwarzkopf asked COL John Warden, the US Air Force representative on the planning team, how long it would take to carry out the preliminary air campaign, which included gaining air superiority; neutralizing Iraqi command and control capabilities; and destroying or neutralizing Iraqi antiaircraft installations, airfields, missile storage sites, munitions plants, weapons labs, oil refineries, bridges and railroads. Skeptical, Schwarzkopf said, "Even with double the air power, his estimate seemed optimistic."

11. Watson, George, Tsouras and Cyr.
12. Schwarzkopf.
13. BBC World Service, "Gulf Crisis Chronology," 1992.
14. Schwarzkopf.
15. *Ibid.*

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GLOBAL Operations

America's Army must be prepared to address operational contingencies across the full spectrum of conflict in a new, ever-changing world. Now and tomorrow, the Army must fulfill its vital role of supporting national security strategy. This section's articles suggest several key elements leaders should consider when planning peacekeeping, humanitarian assistance and disaster relief operations. Army civil affairs (CA) units and Corps of Engineer elements, for example, give commanders additional resources and expertise in diverse operating environments. These units are rapidly expandable and strategically deployable and are capable of supporting the political, economic and informational aspects of global operations. In peace time operations or conflict, they can help the commander achieve decisive results.



Civil Works and National Security

Honorable John H. Zirschky, Acting Assistant Secretary of the Army

IN 1801, WITH THE NATION'S westward expansion barely begun, President Thomas Jefferson needed a national development instrument to meet a growing nation's needs. He needed an institution with the capability, resources, resolve, breadth of experience and potential to help create a global power from an unexplored frontier's raw materials. He determined the most likely instrument of such change was the same institution that had proved its mettle in securing the nation's independence. Further, he proposed that, in time of peace, the US Army would be the best-suited institution to lead explorations, map the frontier, survey for roads and canals and assist in building the infrastructure for the nation he envisioned.¹ In 1802, the US Congress, recognizing the need for a national engineering capability, established a Corps of Engineers at West Point, New York, with the nation's first military academy and first engineering school.² Thus began the Army's contribution to national security through its civil works program. The Army's first major tasks were to remove navigation obstructions from the Ohio and Mississippi rivers and to explore and map the West.

In succeeding eras, the Army used its civil works expertise to promote economic development and strength by expanding river navigation, building flood control projects throughout the country, providing water and hydroelectric power to communities nationwide and accomplishing other nationally significant projects, such as Florida Everglades restoration. These endeavors and the decentralized management structure that executed them, have demonstrated synergy, flexibility and efficiency found in few other public agencies. Annual benefits to the country from the civil works program exceed \$30 billion, or roughly 10 times the annual investment. The Army provides great value to the American taxpayer.

Because the US Army Corps of Engineers—much like the Department of Defense (DOD)—faces sig-

The Army is using its capabilities to foster social stability through resource and infrastructure development and, thereby, reduce the likelihood of mobilizing combat forces. The Army has used, and will continue to use, its expansive civil works experience to foster stability, project power and deter war.

nificant budget cuts, a firm link between civil and military assets will be needed to continue to meet our citizens' needs, improve quality of life and provide environmental stewardship. The breadth of these challenges is enormous.

Unfortunately, many in the defense and national security community are unaware of the civil works program's contributions to our country. Without our national security leaders' continued support, this asset will be at risk. This article provides insight into several civil works program contributions.

Enhancing Security

As a 21st-century initiative, Lieutenant General Arthur E. Williams, US Army Corps of Engineers commander, and I are actively re-evaluating the corps' engineering missions and capabilities from a national needs and global influences perspective. As the Army faces complex 21st-century challenges, it must adapt to rapidly evolving threats. With civil works, the Army supports power projection by developing and maintaining inland and coastal waterways and ports; provides technical intelligence and advice to the commanders in chiefs (CINCs) through our overseas presence; and responds to crises such as floods, hurricanes, earthquakes and other natural disasters. Losing such capabilities would invoke enormous security risks. As stated in the US Joint Chiefs of Staff *National Security Strategy*, February 1995, "Not all security risks are

With civil works, the Army supports power projection by developing and maintaining inland and coastal waterways and ports; provides technical intelligence and advice to the CINCs through our overseas presence; and responds to . . . natural disasters. . . . "Not all security risks are immediate or military in nature. Transnational phenomena such as terrorism, narcotics trafficking, environment degradation, national resource depletion, rapid population growth and refugee flows also have security implications . . ."

immediate or military in nature. Transnational phenomena such as terrorism, narcotics trafficking, environment degradation, national resource depletion, rapid population growth and refugee flows also have security implications . . .³ The civil works program is an important means to counter these threats.

In response to myriad potential conflicts, the Army must maintain its capability to operate across the full operational spectrum from peace to war. In operations other than war, the Army's civil works capability is a diplomatic tool that can prevent conflicts and provide a nonthreatening presence. For example, in Bolivian, Columbian and El Salvadoran villages, corps engineers conduct site surveys and surface/ground-water mapping and provide health clinic, harbor, reservoir and sanitation system construction assistance. In Honduras' Sula Valley, corps engineers provide flood control technical assistance. In Ecuador, engineers conduct dam safety inspections. In Latvia, they give advice on ice flood control. In Argentina and Uruguay, they support US Southern Command's nation assistance mission with advice on environmental challenges such as ocean dumping, wetlands, erosion control and master planning. The expertise that allows these engineers to assist present and potential US allies was gained through their work in the Army civil works program at no cost to the military budget.

In this post-Cold War period, the Army is using its capabilities to foster social stability through resource and infrastructure development and, thereby, reduce the likelihood of mobilizing combat forces. The Army has used, and will continue to use, its expansive civil works experience to foster stability, project power and deter war. Conversely, the civil works program benefits the Army in the following ways:

- Consolidates engineering, planning and design and construction management expertise to respond to national military engineering need surges.

- Leverages federal resources through contracts with approximately 1,000 engineering and construction firms nationwide.

- Transfers technology between military and civilian engineering projects to support environmental, material, structure and information management initiatives.

- Enhances wartime and disaster relief mobilization readiness.

- Promotes the Army's grass roots image nationwide through its 13 divisions, 40 districts, four laboratories and hundreds of field offices.

- Provides one-stop, reimbursable service.

- Supports diplomatic relations with foreign countries through scientific and technical exchanges.

- Ensures engineering expertise through experience-based, professional development assignments.

- Uses non-DOD appropriations to fund activities.

The Corps of Engineers constantly employs the essential capabilities for effective power projection, such as planning, design and construction activities; engineering management; contingency management; environmental services; engineering research and development technologies; emergency operations; real estate management; and contracting resources. Thousands of civil works-funded men and women, from 40 corps districts, perform these functions and manage sophisticated programs of national interest. These professionals, who make civil works integral to our nation's security, are familiar with Army culture and responsive to the Army chain of command.

Throughout US history, there have been projects

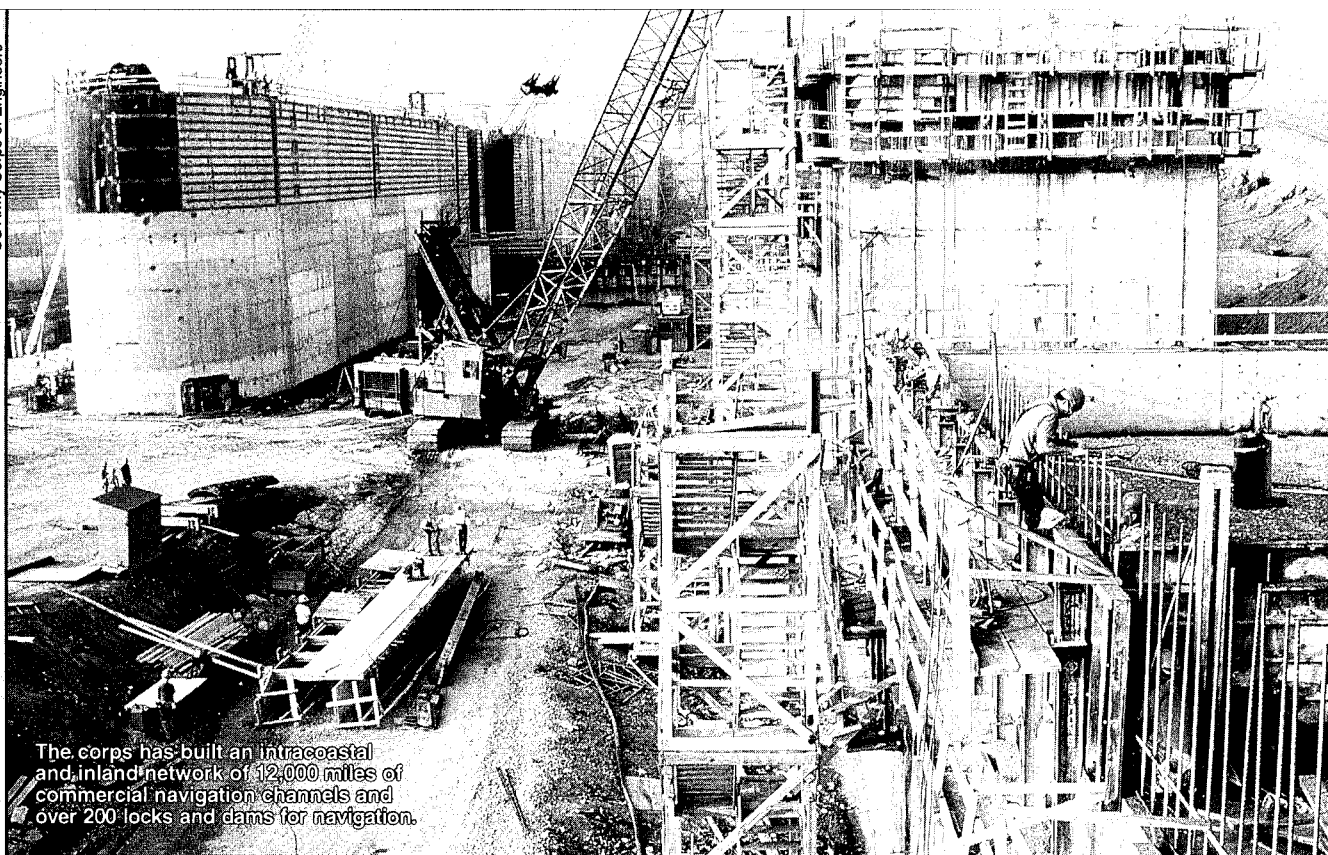
Technology Applications

— Civil Works —

Soils engineering and trafficability
Beach erosion and hydrology
Winter navigation and ice dynamics
Lock and dam stress analysis
Roller-compacted concrete dams
Pavement design with marginal materials
Geographic Information Systems

— Army —

Combat mobility analysis
Hardstand construction and repair
Logistics over the shore
Winter river crossings
Hardened structure analysis
Expedient road and airfield construction
Training land management and installation master planning
Satellite-based navigation/Global Positioning System
Rapid terrain analysis and topographic products



The corps has built an intracoastal and inland network of 12,000 miles of commercial navigation channels and over 200 locks and dams for navigation.

Throughout US history, there have been projects so critical to our defense that they required a civil-military partnership. For example, during World War II, the US Army Corps of Engineers successfully managed the Manhattan Project. Later, corps engineers supported NASA's Apollo program. More recently, supplies and equipment bound for Operations Desert Shield and Desert Storm were shipped through inland waterways and out of deep water ports maintained by the corps civil works program.

so critical to our defense that they required a civil-military partnership. For example, during World War II, the US Army Corps of Engineers successfully managed the Manhattan Project.⁴ Later, corps engineers supported NASA's Apollo program. More recently, supplies and equipment bound for Operations *Desert Shield* and *Desert Storm* were shipped through inland waterways and out of deep water ports maintained by the corps civil works program. Corps real estate specialists obtained the facilities needed to house troops and position supplies, and during the conflict, corps research laboratories provided information on topography, ground mobility and other critical areas. Civil works has been a vital part of the Army's stateside power projection platform. In this period of budget constraints, it is worth noting that this technical support reservoir is provided at *no direct cost* to the Army's budget or its civilian staffing ceilings. The Army's civil works program is authorized and funded by separate congressional action and is not part of DOD's budget.

Civil-Military Team Benefits

The corps civil-military alliance provides rapid response, extensive technical expertise and compe-

tent federal stewardship of large projects vital to the nation's defense. This partnership is an example to the world of the role the military plays in a democracy. Army officers bring unity of purpose, breadth of experience and continually honed leadership skills to the alliance. In addition, military service traditions provide apolitical and technical leadership dedicated to attaining broad national objectives. Many of the corps' 1,000 to 2,000 annual official foreign visitors are astounded by this relationship.

The partnership between the civil works and military programs generates powerful economic benefits for the Army and the US economy. The civil works infrastructure provides \$33 billion in economic benefits, generates \$23 billion in taxes and saves the US Treasury nearly \$7 billion per year—all for an investment of roughly \$3.5 billion a year. The corps is a major contributor to our nation's economic strength, which promotes internal stability and positive international relations. The corps maintains more than 600 ports and harbors that handle over 2 billion tons of cargo per year, operates 383 dams and reservoirs which prevent more than \$13 billion in flood damage annually and provides 24 percent of

the nation's hydropower. Army recreation areas create 600,000 jobs, as 10 percent of Americans visit one of them each year.⁵

Another benefit to our country is corps engineering management support to federal agencies that do not have the resources to manage their own engineering and construction needs.⁶ The corps has often helped agencies finish projects on time and within budget, thereby ensuring the taxpayers' investment is protected. For example, the corps supports the Interior Department in improving natural water flows in Everglades National Park.⁷ Indeed, the secretary of interior specifically requested an Army officer to head the Everglades restoration project. The corps also performed environmental restoration and waste management work in support of the Energy Department's weapon production programs. The corps' support to other federal agencies helps maintain the skills critical for mobilization.

During mobilization, the direct benefit of the Army's civil works program is most apparent. The Corps' network of thousands of contractors can be expected to exploit the US industrial base. Private architectural, engineering and construction firms are employed for most design and construction work, becoming essential partners on the Army engineer team. With several thousand architects, engineers and builders, this partnership is a major force multiplier that links the private sector to the government. Corps contracting expertise can also be used to develop Logistics Civil Augmentation Program contracts to provide in-country support to troops deploying around the world. The 19,000 kilometers of commercial navigation channels built and maintained by the corps facilitate military logistics. The soils engineer provides advice on shore assault equipment, locally available construction materials and roadway trafficability. In fact, the technology and expertise

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developed by the corps for the civil works program can be directly applied to the Army's warfighting capabilities as depicted in the figure on page 54.

Corps civil works support contributes to the Army's transformation from a forward-deployed force to one that relies heavily on its ability to project power.⁸ This support will continue to enable the Army to be more mobile, agile, precise, flexible, smart and, especially, ready.

Historically, there have been attempts to separate the civil works mission from the Army, but successive administrations and congresses have reaffirmed Jefferson's wisdom. The civil-military partnership that opened a continent, helped put a man on the moon and contributed to victory in Southwest Asia is a "force-in-being" able to respond decisively across the full spectrum of conflict.

The US construction industry and Army partnership will continue to make major contributions to Army readiness and the nation's well-being. A strong, viable civil works program residing in the Department of the Army and funded by nondefense dollars, is a good investment for the nation in the 21st century and beyond. **MR**

NOTES

1. Theodore Crackel, *Mr. Jefferson's Army: Political and Social Reform of the Military Establishment, 1801-1809* (New York: New York University Press, 1987).

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4. Vincent Jones, *Manhattan Project, the Army and the Atomic Bomb* (Washington, DC: US Center of Military History, 1985).

5. R. Scott Jackson, "An Assessment of the National Economic Effects of the US Army Corps of Engineers Recreation Program," (Waterways Experiment Station,

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WAR and OOTW

Philosophical Foundations

Major Peter Fromm, US Army

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Let thy chief fort and place of defense be, a mind free from passions. A stronger place and better fortified than this, hath no man.

—Marcus Aurelius

IN 1870, ARDANT DU PICQ argued that despite advanced technology, man will always be the focus of war because “centuries have not changed human nature.”¹ Today his wisdom deserves renewed attention as US Army doctrine changes to accommodate the likely circumstances of war. If understanding human nature is central to understanding war, it is equally important under conditions we have termed *operations other than war* (OOTW). Our military leadership is now challenged to think more broadly than ever before. The controversial OOTW mission track is itself evidence of this need to move beyond the comfort zone of familiar thought patterns. Former Army Chief of Staff General Gordon R. Sullivan said this challenge requires a “conceptual shift [that] involves refining the understanding of how to use military force.”² Expanding on du Picq’s assertion that “man is the fundamental instrument in battle,” I believe the place to begin refining our understanding of how to apply military force in OOTW begins with man and a philosophical examination of human nature.³

We have become used to thinking in familiar, but often artificially structured, categories that facilitate mission accomplishment. Given the nature of battle and its pressures, we lighten our thinking load with habitual training allowing us to react quickly and effectively under pressure. These habits compartmentalize our concepts and actions. The need for clear thinking and prompt, accurate action drives our desire for clearly defined categories. As Sullivan has emphatically stated, the OOTW label is useful because it packages a foggy and difficult concept to help strategists plan in general terms for even more general situations.⁴

Yet when categories of things differ in degree, but not in kind, artificial distinctions relying on universal semantic agreement become difficult to maintain and can obstruct, rather than facilitate, thought. Thus, in his article “Land Warfare in the 21st Century,” Sullivan stresses that “Strategists cannot allow these conceptual categories to become the kind of euphemisms [that keep us from recognizing]. . . the requirements essential to success whenever military force is employed.”⁵

This article examines how leaders can keep OOTW from being a euphemism that clouds judgment. The central idea is that when we do use armed

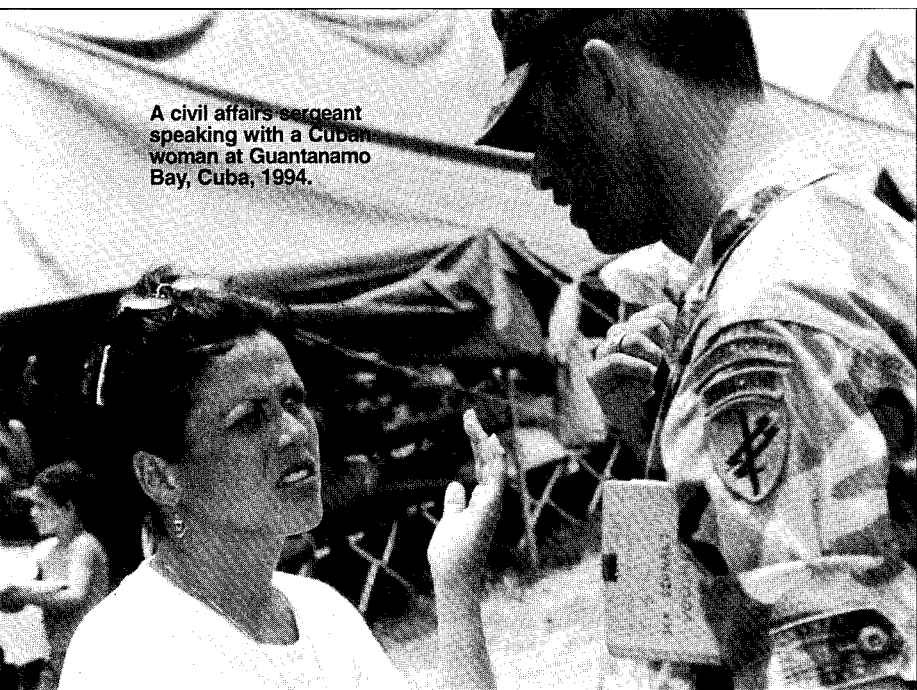
Authentic national and international will must have a firmer foundation than political ideology or media hype. If it is to last, national will must be anchored solidly in moral legitimacy acknowledged by human nature’s universal sense of justice.

forces in an OOTW environment, the *requirements essential to success* will hinge upon our interaction with the country’s inhabitants we are trying to help. An OOTW identifying aspect is that *people* are usually the mission focus. In contrast, an abstracted *enemy* is most often the focus in doctrinal war missions.

If leaders want to avoid simplistic judgments when making the conceptual shift Sullivan calls for, we must think about OOTW missions more philosophically than technically—that means we need to think as clearly, dispassionately and creatively as we can about the people involved in the mission and our underlying values.

Vietnam remains a standard of sorts to which many look when thinking about the risks of ignoring the people in OOTW missions. In his book *On Strategy*, author Harry G. Summers renders a Clausewitzian conflict analysis, showing how policy must

A civil affairs sergeant speaking with a Cuban woman at Guantanamo Bay, Cuba, 1994.



US Army

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proceed to obtain long-term success. His thesis is that America's ultimate failure in Vietnam stemmed directly from a lack of national will.⁶ But his main argument is not that the war's injustices alienated many Americans and Vietnamese; instead, Summers says the problem was the American people were not sold on the war beforehand.⁷ Summers implies national will is something we can generate, missing the fact that such will must stem from legitimacy. Having *legitimacy* means having the American people's approval, the "intervened" country's approval and the world community's approval. Authentic national and international will must have a firmer foundation than political ideology or media hype. If it is to last, national will must be anchored solidly in moral legitimacy acknowledged by human nature's universal sense of justice.⁸ In this sense, Summers' argument does not go far enough in expressing full strategic and moral implications. For the subtler, more complex aspects of human nature's dynamics, the military professional must look to Clausewitz's own observations.

Despite recent attempts to label his theory obsolete, Clausewitz's view of politics and war as a continuum is still applicable to world affairs. Specifically, Clausewitz's *paradoxical trinity* applies as much to new mission categories as it does to conventional war. But there are two initial difficulties in understanding Clausewitz's trinity. The first is that

Clausewitz is a philosopher transmitting a comprehensive theory which, far from advocating prescriptions, describes the *nature of war*. The second problem is his trinity stems from a particular philosophical method. This fact may seem insignificant, but knowing what sort of thinker Clausewitz was helps in understanding his paradoxical trinity and may help us avoid disaster.

Clausewitz's ideas, like those of all Western philosophers, owe a great debt to the ideas of Plato and his student Aristotle and the tradition in which they emerged. Plato and Aristotle have had such pervasive influence on our world that "all European philosophy is but a footnote to Plato."⁹ Editor Anatol Rapoport says that Clausewitz works in the tradition of philosophical "essences" stem-

ming from Plato and Aristotle.¹⁰

One philosophical tradition is to explain the foundational principles of *being* and *knowledge*. Clausewitz tried to do that for war—describe its being, what it is.¹¹ Despite views to the contrary, he in no way implies that *unlimited war*, as a reflection of the *absolute*, is something we ought to strive for as a policy instrument. Rather, Clausewitz thought reason alone reveals war's pure form—its absolute unmitigated by real world forces. But *friction*, in the form of the paradoxical trinity, transforms war into the thing we experience. As Clausewitz says, "The abstract world is ousted by the real one and the trend to the extreme is thereby moderated."¹² Friction is what divides real war experience from the conceptual absolute, because idealized conditions can never be influenced by the paradoxical trinity, which holds war "like an object suspended between three magnets."¹³

The trinity illuminates how forces of human nature—reason, passion and creativity—transform the logical concept of war into real experience. The trinity's critical truth is that OOTW has always been part of Clausewitz's spectrum of war. As Sullivan has written, "While these endeavors [OOTW] do not qualify as 'war' in today's military-politico parlance, they are examples of acts 'of force to compel our enemy to do our will' which spring 'from some political purpose.'"¹⁴ Philosophical arguments

about the relative distinctions between politics and war notwithstanding, most people would agree with both Clausewitz and Sullivan. As surely as human beings live in communities, policy and force mingle continually in our existence's essential nature.

Clausewitz's paradoxical trinity reflects our traditional understanding of human nature under the political conditions defining our existence. The trinity has direct parallels with Plato's *tripartite human soul* concept and Aristotle's subsequent division of human nature into *logos* (reason), *pathos* (passion) and *ethos* (character produced by moral and intellectual habits). Generally, the parallels we see are *logos* with Clausewitz's "reason" and government policy, *pathos* with the "blind natural forces" of "enmity" and "hatred" and *ethos* with "chance" and "the creative spirit."¹⁵ In the case of *ethos*, Clausewitz explicitly connects the courage of genius and the "character of the commander" with the creativity to minimize chance effects.¹⁶ Plato and Aristotle also connect courage to *ethos* as the primary virtue for shielding a good character from the accidents of luck. The similarities between the Greeks' *pathos* and Clausewitz's *blind natural force* and *hatred* are clear. The nuance of passion for both views is that it can make us do both good and evil but is self-destructive if not controlled by reason.

Clausewitz's idea that "reason" and "policy" govern our passions and our creativity corresponds to the *logos*' role in both Plato's and Aristotle's human nature conceptions.¹⁷ It is clear from these parallels that Clausewitz's paradoxical trinity directly reflects Western philosophy's traditional human nature model.

Why did Clausewitz model war after human nature's forces? Because a reason for using force is to "compel an enemy to do our will," the origin of the fighting impulse is in human nature. Because force will be resisted—the impulse to resist springs from the same source as the will to compel—



A little boy injured during a mortar attack on a Sarajevo market is evacuated on a US C-130 to a military hospital in Germany, February 1994. The attack killed 63 people and wounded more than 200.

Americans, like most rational people, want to help others, even to the point where the cause's virtue rises in proportion to its degree of difficulty or impossibility. Sullivan reiterates that "there is an emotional temptation to want to 'do something' without first clearly understanding what political purpose that 'something' is supposed to accomplish."

fighting, or war, will result. When involving ourselves in affairs that compel others to do our bidding, we must expect a reaction.

If in OOTW a country's inhabitants perceive someone has wronged them, even subtly, they may respond by fighting to amend the perceived wrong. People the world over agree about the meaning of "wronged." Territorial integrity and political sovereignty have always been the basis for measuring right and wrong and just and unjust actions in relations between states.¹⁸

People are always the sovereigns of their home country, and nothing evokes more passionate hatred than infringement on their claim to ownership. A state's political motivations are collections of the community's motivations as individuals. For Clausewitz, policy and war's ultimate center is the individual's perception. Du Picq, also recognizing the human spirit as the single constant in war, agrees in principle

As General MacArthur reiterated in connection with General Yamashita's sentencing for war crimes, "The soldier, be he friend or foe, is charged with the protection of the weak and unarmed. It is the very essence of his being . . . [a] sacred trust." That is why we value courage so highly—its essence is selflessness in defense of those who otherwise would have no defense. . . . The warrior tradition rests on this distinction.

with Clausewitz's focus on human nature. "History shows, not armies, but firm souls who have fought unto death."¹⁹ Du Picq reaffirms that "the human heart . . . is then the starting point in all matters pertaining to war."²⁰

Accepting that Clausewitz meant for us to see war and politics as human nature's emanations, we should look to the history of human ideas for "conceptual distinctions."²¹ As Sullivan succinctly stated, we must identify "clear, achievable political aims . . . [while] ensuring the support of the nation [or coalition]."²² Just war tradition, a universally acknowledged set of unwritten international values, can help us identify and achieve these aims.

Just war tradition has two logical components: the justness of the cause when taking action that could cause war; and justness of military action execution. To achieve harmony in military action, and its aftermath, it is necessary for leaders at all levels to ensure their actions adhere as much to the just war tradition as to tactical doctrinal norms.

The concept of military service as something honorable stems from the historical just war tradition that separates the warrior *ethos* from the murderer *ethos*. Where the brigand's *ethos* is to threaten, coerce and kill for personal gain, the warrior *ethos* is to courageously protect the weak and the innocent in combat for the good of others. As General of the Army Douglas MacArthur, Supreme Commander of Allied Occupation Forces in Japan, reiterated in connection with General Tomoyuki Yamashita's sentencing for war crimes, "The soldier, be he friend or foe, is charged with the protection of the weak and unarmed. It is the very essence of his being . . . [a] sacred trust."²³ That is why we value courage so highly—its essence is selflessness in defense of those who otherwise would have no defense. Both Eastern and Western philosophy make this distinction between bold action for personal gain and action to help others. The warrior tradition rests on this distinction.

Because military personnel have traditionally taken risks to help those depending on their courage, society in general regards them as selfless and honorable. That regard depends upon the military's sense of courage and responsibility and its adherence to traditional moral codes—which is why that universal tradition is codified in doctrine for America's Army. We want people around the world to know that we will keep faith with our traditional moral responsibilities and policy as armed forces. The logic of our *ethos* is that we will help wherever we can legitimately and feasibly do so, with or without weapons.

In the eyes of the national and international community, OOTW conditions will not change the expectation that we will respect international laws and societal norms regarding military action. The *Law of Land Warfare* states our moral code with the force of constitutional law, but even more significantly, this code is integrated in operational doctrine. US Army Field Manual 100-5, *Operations*, states that "amid the rigors of combat, the integrity of every soldier—from the highest to the lowest ranks—is of paramount importance. Since lives hinge on accurate reporting, there can be no room for half-truths or falsehoods. Soldiers must be counted on to do what is right even when no one is watching."²⁴

Although this doctrinal imperative is directed at tactical-level leaders and soldiers, it is clear that doing the right thing at all levels is vital. Morality is of "paramount importance" since, by definition, it pertains to the innocent—and where coercion and killing in war are concerned, it is the protection of the innocent that is at stake. Thus, all military action must, by necessity, yield to that overarching idea—"protection of the weak and unarmed." Both strategically and tactically, that means using force with the most sincere consideration of innocent lives and property.²⁵

These moral imperatives limit violence's boundaries. Because unconstrained force does not best serve our political goals, which stem from the trinity's forces, violence and the threat of its use must be legitimate, restrained and tempered with reason appropriate to the situation. In OOTW, assessing each situation in concrete terms—the people involved and US forces' values—is the challenge. Clausewitz's thoughts on courage, creativity and controlling policy take on special significance. We must see his theory in terms of its source—the forces of human nature. He implies that, to avoid political folly and disastrous intervention in another country's affairs, we must understand how moral legitimacy applies to war in the larger sense.



Marine gunners aim their M-60 machinegun at a weapons cantonment area held by forces loyal to warlord Mohammad Farrah Aided, Mogadishu, Somalia, 1992.

Why did Clausewitz model war after human nature's forces? Because a reason for using force is to "compel an enemy to do our will," the origin of the fighting impulse is in human nature. Because force will be resisted—the impulse to resist springs from the same source as the will to compel—fighting, or war, will result. When involving ourselves in affairs that compel others to do our bidding, we must expect a reaction.

To have a just cause when intervening in another country's affairs, we must have not only our own citizens' approval but the approval of the people in the country where we will intervene. That initial assessment is our senior leaders' concern. It then becomes the responsibility of the leaders on the spot to ensure their actions do not alienate that approval by reflecting a disregard for the political sovereignty and territorial integrity of the people they assist. While being ready to fight, they must avoid what Aristotle called *hubris*—haughty pride that insults people. "*Hubris* consists in doing or saying things that cause shame to the victim, not in order that anything may happen to you, nor because anything has happened to you, but merely for your own gratification. . . . Again, under *hubris* falls disrespect, and to show disrespect [to fail in showing honor] is to slight."²⁶ If foreign military forces insult the local population, it might be interpreted as a threat against their sovereignty. If they perceive their sovereignty and territorial integrity are threatened, however inadvertently, a gradual perception shift toward aggression will result.

Leaders must not forget this important lesson—overstaying or straining an invitation to help may transform a legitimate intervention's good intentions into a *de facto* case of aggression. When forces sent to help another nation sense a change in the inhabitants' attitude; soldiers' feelings may transform to

match the citizens' impressions. Leaders must anticipate this alienation and a shift from benevolence toward most people, into an overt, yet restrained, sense of enmity for them all.

Events in Vietnam demonstrate this process—the impingement upon a foreign nation's political sovereignty and territorial integrity is visually implicit from the start. A shift in attitude on either side may transform a symbolic invasion into a literal one in most citizens' minds. In such cases, hatred and passion can overwhelm a benevolent policy and the leader's creativity to deal with fortune's vicissitudes. Clausewitz would say policy and creativity have failed to check "passions' pull." The balance has swung toward violence and war. The propensity for violence will increase in proportion to rising passions and diminishing reason and the creative ability to influence events.

History is replete with examples. In the case of OOTW intervention, a psychological culmination occurs when passion overreaches reason in the minds of those who feel wronged, at which point no further moral authority exists for any external armed forces in their given mission. When a humanitarian mission goes awry, if there is no leader who has the requisite courage and creative genius to put things right, the moral high ground becomes a no man's land.

US Army Field Manual 100-5, Operations, states that "amid the rigors of combat, the integrity of every soldier—from the highest to the lowest ranks—is of paramount importance. Since lives hinge on accurate reporting, there can be no room for half-truths or falsehoods. Soldiers must be counted on to do what is right even when no one is watching."

Americans, like most rational people, want to help others, even to the point where the cause's virtue rises in proportion to its degree of difficulty or impossibility. Sullivan reiterates that "there is an emotional temptation to want to 'do something' without first clearly understanding what political purpose that 'something' is supposed to accomplish."²⁷ But it is an ethics rule in general that one has no moral obligations where one has no power to act for the good. Leaders must remember that, if you cannot do anything to make the situation better using a given course of action, then you have no obligation to use that course of action. Indeed, reason suggests it is actually harmful to act under these circumstances. In international intervention cases where sovereignty and integrity are precariously balanced, the legitimate and the morally questionable must be clearly distinguished. If we no longer have popular approval to be in another country under arms, our continued presence will eventually erode the values and goals that were the original political intervention objectives. Leaders must be aware of that approval,

sense it and know when it is slipping away.

By understanding Clausewitz's paradoxical trinity, we will enable ourselves to see the difference between dispassionate, constructive decisions and the moral miscalculations that can lead to folly. Offering or threatening to intervene must be morally and politically acceptable.

In the final analysis, when we deploy to a foreign country, justness must be our first criterion. Two millennia ago, Sun Tzu wrote that moral legitimacy is essential in war's "five fundamental factors." "The first of these factors is moral influence . . . By moral influence, I mean that which causes the people to be in harmony with their leaders. . . ."²⁸ "Those skilled in the art of war cultivate the *Tao* [moral harmony] and preserve the laws and are therefore able to formulate victorious policies."²⁹ Tu Mu, a medieval Confucian commentator maintained that "those who excel in war first cultivate their own humanity and justice and maintain their laws and institutions."³⁰

The "laws" for the ancient Chinese, formal rituals of reciprocity, apply analogously for us today in the form of a universal and rational sense of legitimacy that keeps passion and hatred in check. Despite the seemingly disparate traditions of Eastern and Western philosophy, they are clearly in agreement on the essential aspects of the relationships among war, justice and human nature. US military leaders are charged with the immense responsibility of completing Clausewitzian analysis through action—applying the paradoxical trinity's wisdom with courage and creativity on battlefields paradoxically dubbed "other than war." **MR**

NOTES

1. Ardant du Picq, "Battle Studies," *Roots of Strategy, Book 2* (Harrisburg, PA: Stackpole Books, 1987), 65.
2. GEN Gordon R. Sullivan, "Land Warfare in the 21st Century," *Military Review* (September 1993), 19.
3. Du Picq, 65.
4. *Ibid.*
5. *Ibid.*, 21.
6. Harry G. Summers, *On Strategy* (New York: Dell Publishing, 1984), 46.
7. *Ibid.*, 50-52.
8. Aristotle, *The Rhetoric of Aristotle*, translated by Lane Cooper (Englewood Cliffs, NJ: Prentice-Hall, 1960), 73. Philosophers and anthropologists agree justice is one of many values that objectively apply across cultures.
9. Alfred North Whitehead, quoted in *The Great Thoughts*, compiled by George Seldes (New York: Ballantine Books, 1985), 333.
10. Anatol Rapoport, "Editor's introduction" to *On War* by Carl von Clausewitz (New York: Penguin Books, 1968), 13.
11. Another tradition in philosophy is attempting to explain what "ought to be" or *value theory*. Henri Jomini, for instance, discusses value theory (prescription) in his *Art of War*. Clausewitz, on the other hand, discusses primarily what war is, not what it ought to be.
12. Clausewitz, 57.
13. *Ibid.*, 65.

14. Sullivan, 21.
15. Clausewitz, 65.
16. *Ibid.*, 76.
17. *Ibid.*, 65. A comparison of Clausewitz's trinity with Plato's chariot metaphor for "soul" in the *Phaedrus* and with Aristotle's conception of human nature in *De Anima* and in the *Rhetoric* reveals clear similarities. Semantics alone are enough to establish the point that Clausewitz sees human nature at the heart of war.
18. Michael Walzer, *Just and Unjust Wars* (New York: Harper Torchbooks, 1977), 63.
19. Du Picq, 119 and 121.
20. *Ibid.*, 65.
21. Sullivan, 19.
22. *Ibid.*, 21.
23. Walzer, 317.
24. US Army Field Manual 100-5, *Operations* (Washington, DC: US Government Printing Office, 1993), 14-2.
25. Walzer, 152-59.
26. Aristotle, 94.
27. Sullivan, 21.
28. Sun Tzu, *The Art of War*, translated by Samuel B. Griffith (New York: Oxford University Press Paperbacks, 1971), 63-64.
29. *Ibid.*, 88.
30. *Ibid.*

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Civil Affairs

A Command Function

Colonel James F. Powers Jr., US Army, and
Major Thomas G. Knight Jr., US Army

LEADING HIS RIFLE SQUAD through a sparsely populated area as part of a company defensive operation, a young sergeant is told to place his men in positions within a small built-up area. After directing the weapon system emplacement, he is approached by a team leader who reports that a "local" wants to bring his family inside the perimeter for protection from the impending attack. Believing it is the right thing to do, the squad leader lets the civilian and his family inside the perimeter, only to later face a flood of refugees who frustrate the unit's plans.

The aggressive battalion task force (TF) commander, seeking to establish control within his sector, is faced with a dilemma: how to protect US members of an international humanitarian aid organization providing relief to a desperate local population. He decides to move the organization out of the area until he can establish the enemy force's size and location. To his frustration, however, the organization's leaders are unwilling to move or cooperate in any way with the US military. Eager to exploit any rifts, the media descend on the TF's area of operations and vividly portray the battalion commander's actions as *inhumane* and *unfeeling*, resulting in command pressure to resolve the situation.

Upon assuming control of a remote logistics base providing support to diverse allied and US elements, the new base commander seeks to institute rigorous and commonsense force protection measures recommended by his intelligence officer (S2). A consistent problem has been pilfering of the compound's military items, probably by host country nationals working in the mess hall and storage sites. The new commander decides to fire all civilian employees and directs the S2 to investigate all new applicants. Upon a trusted host country national's advice, the S2 rec-

As operations other than war deployments increase, soldiers and leaders at all levels must cope with unique situations requiring interface with individuals and groups outside the traditional military operational scope.

ommends new workers from a supposedly reliable list. The next day, a massive riot ensues outside the compound, and several new workers are found beaten to death. An investigation reveals that all the new workers were from one particular clan, and a rival clan had merely employed an age-old practice of "leveling the playing field" to make the hiring equitable between clans.

Although these examples are fictitious, they represent very real situations that can occur wherever US forces are deployed. The examples also show that as operations other than war (OOTW) deployments increase, soldiers and leaders at all levels must cope with unique situations requiring interface with individuals and groups outside the traditional military operational scope. Recent activities in operations from *Just Cause* to *Maintain Democracy* have convinced the Army's senior leaders that today's maneuver commander must deal directly with civilians as both belligerents and noncombatants.

The most potent tool available to help commanders deal with such situations is specially trained, regionally and culturally oriented civil affairs (CA) forces. CA forces, one of the five unique elements of the US Army Special Operations Command (USASOC), are trained and structured to provide commanders with rapidly deployable assessment, tactical and specialized capabilities. Planners should note that support to civil administration is beyond a maneuver commander's normal purview and is more correctly directed and managed at the operational level.

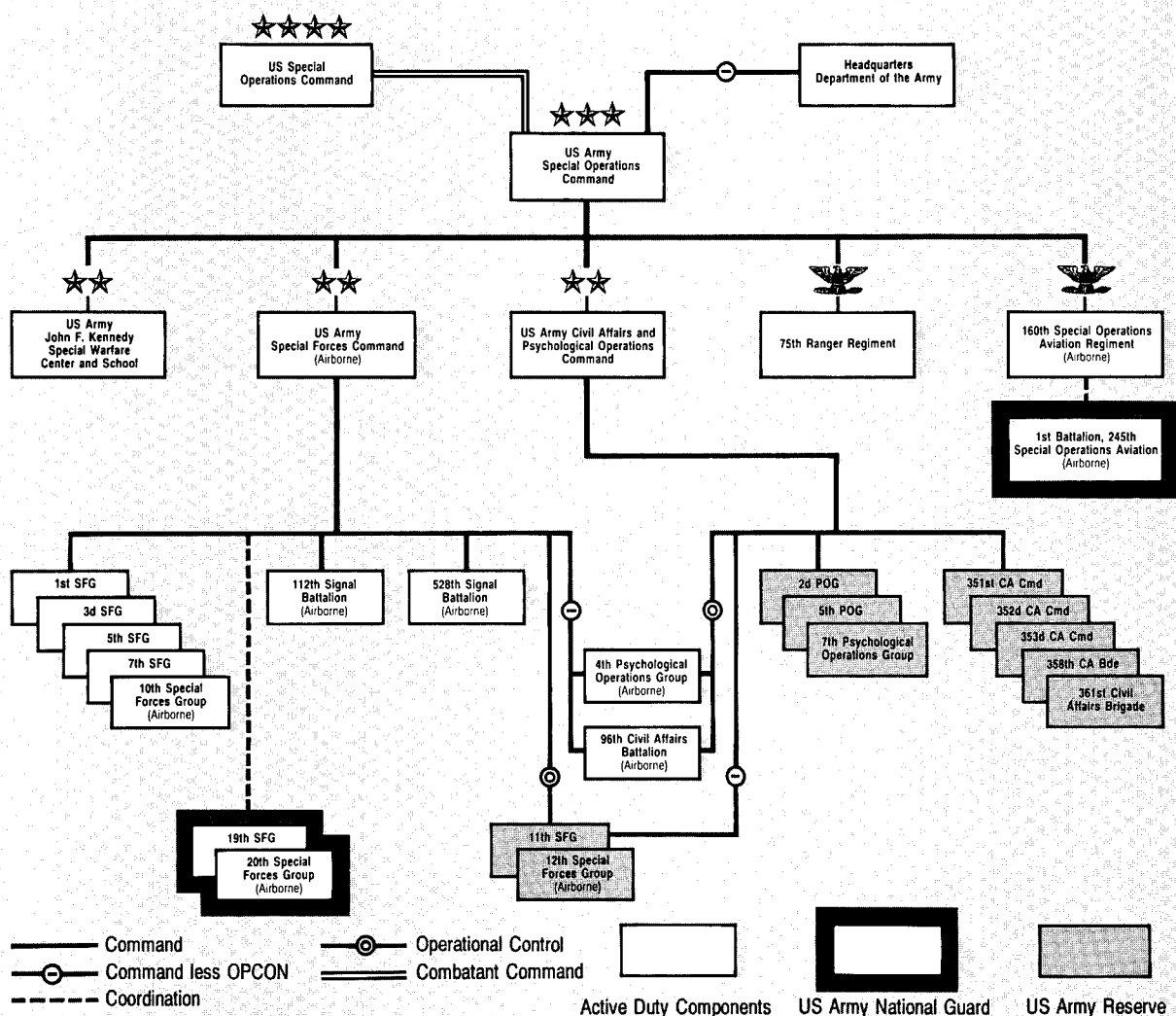


Figure 1. USASOC organization (FM 41-10).

AC forces serve as "generalists," providing tactical CA support to commanders up to joint task force level. RC personnel and units provide generalists also, but primarily provide "specialists," with unique, complex capabilities, up to the unified and governmental levels.

In accordance with Title 10, US Code, the USA-SOC commander is the CA proponent. Additionally, all Army CA forces have been designated special operations forces (SOF). This places the responsibility for Army CA management and doctrine development on the USASOC commander, as depicted in the figure above. CA forces are part of both the Active and Reserve components, with most in the US Army Reserve. In accordance with the Joint Strategic Capabilities Plan (JSCP), Annex L, each unified commander is apportioned, for planning, one Reserve Component (RC) regionally aligned CA command (or equivalent unit), commanded by a

general officer and charged with CA proponentcy in theater. Each Active Component (AC) company assigned to the 96th CA Battalion (Airborne), Fort Bragg, North Carolina, operates under a unique mission-tasking authority of each of these regionally aligned commands.

These AC companies serve as full-time theater assets, available for rapid-deployment missions and contingencies. AC forces serve as "generalists," providing tactical CA support to commanders up to joint task force level. RC personnel and units provide generalists also, but primarily provide "specialists," with unique, complex capabilities, up to the unified and governmental levels. However, in an era of increasing requirements and decreasing resources, the ability of these limited forces to provide Department of Defense (DOD)-wide CA support, coupled with the force's receptivity toward CA capabilities and employment, is problematic at best.

The overarching problem facing military commanders today is that civil-military operations

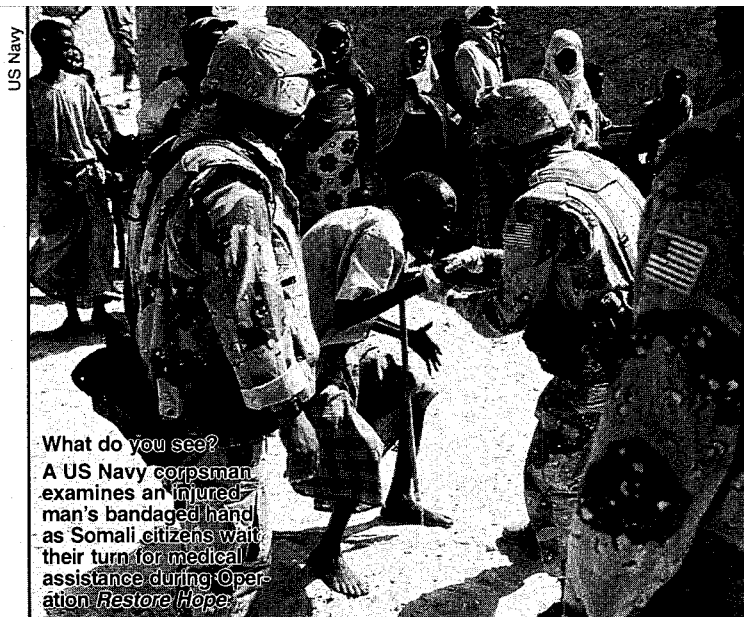
(CMO) are frequently hampered by civilian interference or are ineffective because they have not been integrated with host nation (HN) military and civilian agencies, private voluntary organizations (PVOs) or nongovernmental organizations (NGOs). This is due to three factors: the AC's limited number of readily deployable CA forces, RC accessibility problems and a general lack of education throughout DOD about how to deal with civilians on the battlefield and how to use CA capabilities.¹

This article is based on several assumptions drawn from recent military operations and foreseeable US foreign policy:

- OOTW missions and tempo will increase. Along with these unique missions will come requirements to conduct CMO with civilian populations and agencies.
- CMO will force military leaders at all levels to understand and exploit target population cultural and infrastructure peculiarities.
- *Information warfare* will require US forces to be especially sensitive to actions that could be negatively interpreted by the media. In this instance, information warfare refers to the advantages gained by an adversary in using various media to favorably present its "struggle" and to discredit the opponent's activities. It can also refer to actions taken to gain or distribute information.
- Exploitation of host nation support (HNS) or target country capabilities to facilitate or resource CMO will be essential to success.
- Combined and coalition operations will increase.
- Humanitarian assistance, in concert with UN peacekeeping operations, will increase.

A New Approach

Given this list of assumptions, the Army must aggressively pursue doctrine and policies ensuring CMO success. US Army Field Manual (FM) 101-5, *Staff Organization and Operations*, states that "Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating and controlling military forces to accomplish assigned missions. . . . International law and the Law of Land Warfare specify the commander's ethical responsibility in military operations and for the indigenous population in an area of operation. . . . Command and control is the process through which the activities of military forces are directed, coordinated and controlled to accomplish the mission. This process encompasses the personnel,



What do you see?
A US Navy corpsman examines an injured man's bandaged hand as Somali citizens wait their turn for medical assistance during Operation Restore Hope.

Information warfare will require

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equipment, communications, facilities and procedures necessary to gather and analyze information, to plan for what is to be done, to issue instructions and to supervise the execution of operations."²

FM 101-5 charges commanders with the responsibility for accomplishing inherent CA and CMO requirements, but the Army has not adequately trained or equipped them to meet those obligations. The first step in preparing units and leaders to successfully conduct CMO is to recognize that *CA is a function of command*, as stated in both Secretary of Defense Directive 2000.13, *Civil Affairs*, and Annex L of the JSCP. Just as any tactical commander plans for fire support, air defense and other standard battlefield operating systems (BOS) components, he must plan for US CMO interface, contact with host nation civilians and eventual handoff to some form of UN task force. While conducting intelligence preparation of the battlefield (IPB), all commanders must identify things such as large civilian population concentrations; likely refugee and migrant escape routes; potential dislocated-civilian camp sites; potential HNS supply sources; and specific groups or concentrations of third-country nationals, NGOs or PVOs.

Commanders must learn to anticipate and plan for noncombatants' effects on the battlefield. If a unit is not specifically allocated CA assets, however, these factors are given minimal or no consideration. Army

These CA teams are trained to develop plans to reinforce, support or restore civil administration; coordinate civil assistance plans with HN, US and allied agencies; arrange to transfer authority to the affected nation; assist legitimate officials in restoring essential public services; and coordinate and assist the efforts of NGOs and humanitarian relief and private voluntary organizations.

senior leadership has recognized this, and recent Joint Readiness Training Center (JRTC) rotations have incorporated significant civilian play into exercise scenarios. Commanders experience firsthand the frustration and difficulties of dealing with battle-field noncombatants during the Fort Polk, Louisiana, JRTC rotations and learn the value of treating CA as a "function of command."

Despite recurring lessons from the field, our professional military education system has been slow to fuse doctrine with reality. CA and CMO are given little or no mention at the combat arms basic and advanced courses. Students going through training scenarios and classroom instruction at Forts Benning, Sill and Knox receive no formal CA or CMO instruction. In fact, the only CA involvement students experience at the US Army Command and General Staff College, Fort Leavenworth, Kansas, is relegated to an elective course and minimal play in battle simulation—despite the fact that recent operations in Turkey, Somalia, Rwanda, Haiti and the former Yugoslavia have all included significant refugee and noncombatant involvement.

The Army could take significant steps toward institutionalizing CA as a command function by integrating CMO and noncombatant play into exercises and schoolhouse instruction through mission, enemy, terrain and weather, troops and time available (METT-T) modification to become METT-T-C. The "C" stands for civilians to ensure commanders incorporate CA into their planning.

Adapting the Force

Tactical leaders have every reason to expect DOD to give them the tools they need to do their job properly. One possible way to accomplish this is to modify today's CA force structure. Now, the Army's only AC asset, the 96th CA Battalion (Airborne), provides Civil Affairs Tactical Support Teams (CATSTs) worldwide. These four-man teams are composed of a Functional Area 39C-trained captain, a sergeant 1st class (SFC) 18F (Special Forces opera-

tions and intelligence course graduate), an SFC or staff sergeant (SSG) 18C (Special Forces engineer sergeant) and an SFC or SSG 18D (Special Forces medical sergeant). Each team, oriented toward a specific theater, is trained in a theater-prioritized language and formally schooled in CA and CMO. These teams allow the supported commander to more easily create, restore and maintain public order; identify, safeguard, mobilize and use local labor, supplies and facilities for tactical or logistic purposes; identify and assist in controlling diseases that might endanger military forces; minimize civilian interference with military operations; and ensure equitable distribution of humanitarian supplies and services.

Additionally, these CATSTs help operational staff planning by conducting in-depth operational area analyses; educating the deploying force about the target nation's cultural and religious climate; assisting in the identification and control of US, third-country national and target population personnel; conducting ground assessments to determine HN military and civilian capabilities and requirements; providing requisite linguistic, cultural and regional expertise to support friendly forces; and determining existing civilian administration and infrastructure HN capabilities. Specifically, these CA teams are trained to develop plans to reinforce, support or restore civil administration; coordinate civil assistance plans with HN, US and allied agencies; arrange to transfer authority to the affected nation; assist legitimate officials in restoring essential public services; and coordinate and assist the efforts of NGOs and humanitarian relief and private voluntary organizations.³

CA operations also can improve the relationships among US forces, civil authorities and the HN's populace and must interface with the HN's government. Additionally, CA teams can monitor HN law and order procedures; help rebuild local infrastructure; and assess, coordinate and extend civil services to rural areas. For use in short- and long-term planning for ongoing CMO and civil assistance operations, CA teams must continually conduct assessments of health, welfare, food, water, infrastructure and utilities, as well as the general population's attitude toward and receptiveness to US forces.

Clustering all CATSTs within one unit is the most efficient way to train and qualify personnel, but it prevents most tactical units from gaining immediate access to CA expertise. Since all Army CA forces operate under the auspices of the US Special Operations Command, which provides special operations forces to the five regional warfighting CINCs, the



Soldiers role-playing "dislocated civilians" on the battlefield during a peacekeeping operation simulation at JRTC.

Commanders must learn to anticipate and plan for noncombatants' effects on the battlefield. . . . Army senior leadership has recognized this, and recent JRTC rotations have incorporated significant civilian play into exercise scenarios. Commanders experience firsthand the frustration and difficulties of dealing with battlefield noncombatants during the Fort Polk, Louisiana, JRTC rotations and learn the value of treating CA as a "function of command."

process for requesting CA augmentation is simple. CATSTs, and any other supporting CA assets, will normally report to the supported unit in an "attached" status, thereby placing the requirements for organic support on the supported unit. However, since CATSTs are small, rapidly deployable elements, they require minimal support. Elements requiring CA support must request these forces from the supported CINC, who forwards this request to the supporting CINC using the request and flow depicted in the figure. Perhaps it would be more advantageous and more operationally feasible to assign these small tactical elements to maneuver units on a full-time basis.

Assigning tactical CA elements to conventional maneuver units would be novel and does indeed challenge current SOF employment conventions. However, like the Special Operations Coordination Element (SOCOORD) now assigned at corps level, it is an essential element of today's integrated battlefield.

The Army's ability to furnish the force with assigned CATSTs is limited by end strength caps and the training base's ability to provide enough trained personnel. Presently, however, there are adequate AC CATSTs available to equip each brigade-level major subordinate unit (MSU) with one support team.

Based on a 10-division Army, these CATSTs could either be withdrawn from the AC battalion—breaking up the 96th CA Battalion—and assigned to each MSU, or they could be formed through modifying existing divisional tables of organization and equipment.⁴ These CATSTs could work on the brigade or group staff to prepare estimates and annexes, conduct predeployment force preparation and handle various other CA- and CMO-related tasks. During exercises or operations, the CATSTs could be reallocated by the commander to a subordinate unit requiring CA expertise in sector. Additionally, the CATSTs could develop habitual relationships with RC CA elements and would be trained to assess the need for additional CA forces and request them when required.

It is also conceivable that the Army could provide one CATST to each maneuver battalion as well as each MSU. However, this would require a diversion of or increase in personnel assets and a training base "ramp-up." A CATST at the MSU level would facilitate military operations and provide another force multiplier to the commander.

The proposed reorganization's disadvantages are the sheer difficulties and time constraints that changing the force structure would entail. By the time such a reorganization takes effect and is implemented,

[CATST teams] allow the supported commander to more easily create, restore and maintain public order; identify, safeguard, mobilize and use local labor, supplies and facilities for tactical or logistic purposes; identify and assist in controlling diseases that might endanger military forces; minimize civilian interference with military operations; and ensure equitable distribution of humanitarian supplies.

current events may have bypassed doctrine. World events and likely military force scenarios may shift, thereby negating the need for CATSTs at all MSUs. This is doubtful, however, because the post-Cold War shift to a multipolar environment continues to present nationalistic and regional challenges that will undoubtedly involve US military forces and civilian populations.

Another disadvantage is the proposed restructuring would hinder the regional CINC's ability to request and employ rapidly deployable tactical CA assets because those assets would already be assigned to the MSUs. This notwithstanding, historical data indicates that CA assets tend to be separated and used for staff augmentation more than as coherent teams.

Finally, a reorganization would force the Army's military and civilian leadership to improve access to

RC CA assets. It is a problem peculiar to CA that although sufficient forces exist to meet the field's needs, they are simply too hard to mobilize and activate unless the president exercises a Presidential Selective Reserve Call-up. Breaking up the AC battalion would place the requirement for theater CA support entirely on RC commands and brigades—something they are prepared and willing to do if called upon.

The environment and missions facing military leaders now and in the future will include significant interface and contact with noncombatants. To properly prepare Army forces for this interaction, Army doctrine and structure should be modified to incorporate CA as a function of command—similar to BOS with the eventual inclusion of civilians or CMO as a BOS component. Additionally, CA and CMO training should be incorporated into all combat arms officer basic and advanced courses.⁵ As AC force structures are reorganized, the Army can place tactical CA expertise at all maneuver MSU levels. We should not make the mistake of allowing force structure and present doctrine to prepare us for the *previous* conflict. The time is now to aggressively make calculated, discriminate changes in our training and force structure to ensure America's Army is successful on tomorrow's battlefield, whatever its shape or form may be. **MR**

NOTES

1. Approximately 97 percent of the Total Army civil affairs (CA) force is in the Reserve Component (RC). The Active Component (AC) battalion (with about 220 soldiers) has a worldwide support mission to provide one language and culturally trained company per regional unified combatant command. The RC accessibility problem lies in the fact that short of a major regional contingency, whereby the president could be expected to initiate a Presidential Selective Reserve Call-up, it can be difficult to bring RC personnel on active duty for operational missions. Despite the initiative and dedication of the hard-working core of RC CA specialists and the efforts of the commander, US Army Special Operations Command, to resolve the situation, the problem remains that the one AC unit is virtually overextended, while many meaningful RC assets remain underutilized.

2. US Army Field Manual (FM) 101-5, *Staff Organizations and Operations* (Washington, DC: US Government Printing Office [GPO], May 1984), 1-1.

3. FM 41-10, *Civil Affairs Operations* (Washington, DC: GPO, January 1993).

4. This option retains the advantage of maintaining the present AC battalion as both a training and organizational base and as a CA reserve if more rapidly deployable tactical

CA assets are required. This option has the disadvantage of requiring either an increase in divisional end strength or reallocating personnel slots from other divisional elements.

5. References for integrating CA into military operations and conducting separate civil-military operations include:

— Armed Forces Staff College Publication (Pub) 1, *The Joint Staff Officer's Guide*, 1993.

— Joint Pub 3-05, *Doctrine for Joint Special Operations*, January 1990.

— Joint Pub 3-05.3, *Joint Special Operations Operational Procedures*, March 1992.

— Joint Pub 3-05.5, *Joint Special Operations Targeting and Planning Procedures*, May 1991.

— Joint Pub 3-57, *Doctrine for Joint CA*, test publication, October 1991.

— Joint Pub 5-03.1, *Joint Operational Planning and Execution System (JOPES)*, Volume I, December 1991.

— Joint Pub 5-03.2, *Joint Operational Planning and Execution System (JOPES)*, Volume II, March 1992.

— Annex L, Joint Strategic Capabilities Plan.

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Civil Affairs Support to Domestic Operations

Lieutenant Colonel Walter E. Wright, US Army Reserve, Retired

A NEW CONCEPT, operations other than war (OOTW), was introduced into the military lexicon in the June 1993 version of US Army Field Manual (FM) 100-5, *Operations*. OOTW uses military forces in nontraditional roles such as peacekeeping, nation assistance and support to domestic authorities. Several recent OOTW missions have included humanitarian assistance (HA) and disaster relief operations (DRO).

Disasters are suddenly occurring events which produce mass casualties and cause extensive damage to personal property and public infrastructure. Disasters may be natural or man-made. Recent natural disasters include Hurricane Andrew, the Mount Pinatubo volcano eruption, the Los Angeles earthquake and the Midwest floods. Domestic DROs use Department of Defense (DOD) personnel, equipment and supplies to promote human welfare, reduce pain and suffering and prevent loss of life or property destruction in the aftermath of disasters.¹ In domestic disaster situations, response coordination is done through the Federal Emergency Management Agency (FEMA) under the Federal Response Plan for Public Law 92-228. As a supporting agency to the plan, the US Army is the DOD executive agent. Its ability to rapidly deploy and operate in the most austere environments makes the US Army ideally suited to this mission.²

The statutory authority for federal domestic DROs is the *Robert T. Stafford Disaster Relief Act*, 42 US Code (USC) 5121, which provides for presidential emergency or disaster declaration and describes the amount and type of federal assistance available. The *Stafford Act* authorizes the president to use DOD assets for relief once a formal declaration is made. Policy for implementing domestic disaster assistance is stated in DOD Directive 3025.1, *Military Support to Civil Authority*, and Department of the Army Regulation (AR) 500-60, *Disaster Relief*.³

Under current law, federal RC personnel can be mobilized for domestic disaster relief operations under two statutes: 10 USC 672(b), which authorizes 15 days of annual training; and 10 USC 672(d), which covers individual volunteers. In DROs, these statutes have proved both inadequate and unresponsive. The United States cannot continue to rely on "volunteer" reservist support for these emergencies.

The fundamental principle in using military resources is recognizing that civil government has the primary authority and responsibility for disaster assistance within its jurisdiction. The National Guard has primary responsibility for providing military domestic disaster assistance within respective states. A federal disaster is any event whose severity or magnitude overwhelms local and state authorities or which covers multiple state boundaries.⁴

In disaster situations, military roles are well defined and legally limited in scope and duration. Military resources temporarily support and augment, but do not replace, the local, state or federal civilian agencies that have primary authority and responsibility for disaster assistance. Disaster relief operations are normally conducted in stages: response, recovery and restoration. The military's role is most intense in the response stage and steadily decreases as the operation moves into recovery and restoration. The military withdraws when the civilian authorities have regained the ability to provide basic services to the affected community.⁵

When disasters occur, assessing real and potential damage and anticipated military support requirements must precede the military resource commitment. Federal, state, local and military agencies usually share assessments to ensure that resources and forces are used appropriately and efficiently. US

Army Civil Affairs (CA) units are mission-tasked to prepare for and conduct disaster relief operations and help civil authorities in domestic and foreign situations. As an Army Reserve element of the US Army Special Operations Command, CA offers unique skills and abilities to DROs. As a Reserve Component (RC) element, it relies on citizen-soldiers to understand and empathize with the political, economic and social aspects of affected communities. CA units interface with civilian agencies in the disaster area and advise commanders on the military activity's impact on the civilian sector. They assess damage to the infrastructure, assist in temporary shelter operations, manage a Civil-Military Operations Center and provide liaison between the military and various civilian governmental, nongovernmental and private relief organizations.

Current doctrine allows CA units to assist in the preparation and conduct of DROs. CA units, 97 percent of which are located in the RC, are generally underutilized. Many after-action reports have stated the need for CA units to be included in the initial force employment. Historically, CA units are brought into action late in the relief cycle. Many CA missions within the RC realm are tasked to Active Component (AC) infantry units for convenience. Today's military downsizing promotes the need for more effective RC utilization.

The biggest hurdle to using RC CA units in response to domestic or foreign disasters is the National Command Authority's (NCA's) inability to mobilize Reserve forces unless a Presidential Selective Reserve Call-up is declared. Under current law, federal RC personnel can be mobilized for domestic disaster relief operations under two statutes: 10 USC 672(b), which authorizes 15 days of annual training; and 10 USC 672(d), which covers individual volunteers.⁶ In DROs, these statutes have proved both inadequate and unresponsive. The United States cannot continue to rely on "volunteer" reservist support for these emergencies. In the past, volunteers have provided the greatest level of support, but continued reliance on them violates the doctrinal employment of trained units to meet mission requirements. Additionally, relying strictly on volunteers does not ensure the best and most qualified soldiers are used—only those available at a given time.

If Title 10 USC is amended to allow for a "25K Call-up" for humanitarian assistance missions and domestic DROs, CA detachments, battalions or brigades could deploy from home station to the disaster area via military airlift or self-deploy using organic transportation. As units, they already have a chain of

command, a communications-coordination network, equipment with trained and assigned operators, standing operating procedures (SOPs) and experience to function as effective units in HA and DROs. Since their mobilization and employment would be to provide HA and disaster relief, immediate response periods would usually not exceed 30 days.

After hurricanes Hugo, Andrew, Iniki and other major storms or floods over the past few years, the outpouring of local community support to those in need was overwhelming. This support should translate to political support allowing the president or secretary of defense to mobilize RC soldiers for large-scale disasters and use in low-intensity conflict situations such as Somalia and Bosnia. By using mobilization authority instead of volunteers, the 25K Call-up could ensure rapid RC mobilization for domestic emergencies.

Several training and operational considerations must be addressed to help CA units meet domestic and overseas HA and disaster relief deployment response. CA soldiers must coordinate their efforts with the American Red Cross (ARC) and FEMA—two primary civilian agencies tasked to provide HA and domestic relief in the United States. Three recommendations to improve crisis response are establishing:

- Standardized disaster and emergency management training programs for resident and nonresident instruction.
- A training, coordination and operations relationship between military and civilian agencies.
- A responsive authorization system to rapidly employ RC CA elements in foreign and domestic HA and DROs.

Standardized Training Program

CA has the explicit mission to prepare and conduct HA and DROs. Besides HA and disaster relief, CA units conduct noncombatant evacuation and displaced civilian operations. They can also train governments to support their citizens' needs through disaster response plan development.⁷

CA soldiers have an additional skill identifier designating those trained with specific experience in disaster relief operations through working with FEMA, the ARC and other nongovernmental organizations. CA soldiers are the key links between military and civilian agencies.

FM 25-100, *Training the Force*, stresses the importance of training to the same standards that would be executed in combat—train as you will fight. It should be no different for HA or disaster relief training, and CA units should regularly train to

standard. Because the Army has no standardized training program for many of these tasks, military trainers should request training support packages from the ARC and FEMA. Although other relief agencies may provide information, the ARC and FEMA's training support systems best meet the military's needs. Both agencies offer several training programs in emergency management and disaster services to the civilian population. These are standardized, nationally approved training programs, targeted at the people responsible for domestic emergency relief at the local, state and national levels. These training programs parallel Army Training and Evaluation Program mission training plans for CA units. There is no need to duplicate training program development when civilian agencies already have viable systems.

A two-phase training program can be established using ARC and FEMA standardized programs, as depicted in Figure 1. The ARC's disaster services training program provides resident instruction by certified instructors at no cost to the unit and covers basic, intermediate and advanced-level instruction, including staff exercises. The free FEMA Home Study Program teaches emergency management and operations procedures. These correspondence courses provide an excellent foundation for hands-on

Red Cross Disaster Services Training Courses*

Course	Content	Hours
ARC 3066	Introduction to Disaster Services	3
ARC 3067	Conducting a Disaster Damage Assessment	3
ARC 3068	Mass Care I	8
ARC 3068	Mass Care II	16
ARC 3070	Damage Assessment Supervision	16
ARC 3072	Emergency Assistance to Families I/II	16
ARC 3076	Disaster Health Services I/II	16
ARC 3081	Administering a Small Disaster Operation	16
ARC 3086	Supervision in Disaster	16

FEMA Nonresident Instruction Courses**

Course	Content
HS-1	Emergency Program Manager
HS-2	Emergency Preparedness, USA
HS-3	Radiological Emergency Management
HS-4	Preparedness Planning for a Nuclear Crisis
HS-5	Hazardous Material: A Citizen's Orientation
HS-7	A Citizen's Guide to Disaster Assistance

*ARC offers other disaster services training targeted toward specific unit needs.

**FEMA provides resident training programs through the Emergency Management Institute and offers other courses through local and state emergency management offices.

Figure 1. Standardized Training Programs

CA units are mission-tasked to prepare for and conduct disaster relief operations and help civil authorities in domestic and foreign situations. . . . The biggest hurdle to using RC CA units in response to domestic or foreign disasters is the National Command Authority's inability to mobilize Reserve forces unless a Presidential Selective Reserve Call-up is declared. . . . By using mobilization authority instead of volunteers, the 25K Call-up could ensure rapid RC mobilization for domestic emergencies.

instruction later. This type of training fits well into RC weekend or Inactive Duty Training sessions, or both programs could be combined into a standardized two-week annual training period to provide mission-essential task list (METL) training to CA units. It also would provide a trained citizen-soldier manpower pool from which local ARC chapters could draw volunteers in emergencies when RC units are not mobilized.

Planning for any military operation begins with a situation estimate. Training in damage assessment procedures teaches soldiers how to conduct standardized evaluations in disaster situations and develop courses of action to direct relief efforts. Mass care operations train soldiers how to set up emergency shelters and feed large numbers of dislocated civilians.

Since a majority of CA soldiers are reservists, they are more likely than AC CA personnel to be familiar with the operations of various civilian support agencies. CA soldiers can better direct those in need to places to get relief. AC soldiers can provide similar assistance in DROs, but because most of their family support comes from installation or military-oriented providers, they may not be familiar with the civilian agencies in the area.

Training received through the ARC and FEMA opens the lines of communication between military and civilian agencies. FM 100-19, *Domestic Support Operations*, emphasizes mutual understanding, communication, coordination and liaison between military and civilian agencies as a key to success in providing effective domestic emergency response or support. Mutual understanding allows each agency to gain appreciation for the other's goals, objectives and methods. The better each agency works with its counterpart, the quicker and more efficiently disaster assistance will be provided.

Training and Operational Relationship

The Directed Training Association (DTA) program, outlined in US Army Forces Command (FORSCOM) Regulation 350-4, *Training Under Capstone*, links similar AC and RC units in training support associations. AC units provide trainers to teach their RC counterparts to help raise the RC unit's training readiness level and fulfill its wartime readiness mission. DTA-aligned units may not be in the same wartime "capstone trace" but the program's spirit is to ensure a trained and ready force.

Similar programs can be established for CA brigades and ARC and FEMA regions. Currently, there are nine CA brigade headquarters, eight ARC regions and 10 FEMA regions, which could be grouped into training and operational associations to provide disaster relief assistance within specified geographical areas, as illustrated in Figure 2. These associations could provide training assistance for representative military and civilian agencies and include everything from classroom instruction to actual exercises. Because operational and contingency plan development and review are a mission requirement for all agencies, CA units could help local ARC and FEMA chapters or field offices review and develop emergency response plans to meet their respective community's needs. This fits well into the CA mission to assist local, state and national governments in their respective operational areas. This way, CA soldiers get necessary training

and experience through local agency support. This allows CA units to effectively train to meet national assistance METL tasks overseas by providing domestic assistance at home.

When an actual emergency occurs, the CA brigade headquarters would be alerted when its respective ARC or FEMA region is alerted. The brigade would coordinate the employment of subordinate battalions to assist in the emergency response. The emphasis would be to employ units at the lowest response level needed, but with the capability to expand if necessary. If the situation elevates significantly, as it did during Hurricane Andrew, the CA brigade would provide the necessary liaison between the on-site military commander and various private volunteer and nongovernmental organizations. Thus, all available disaster response assets could be quickly mobilized.

CA Quick-Reaction Teams

A CA quick-reaction team (QRT) should be established at battalion or brigade headquarters. This team should be trained and ready to deploy within 12 to 18 hours after notification. This concept requires leaders to identify, train and prepare QRTs just like AC teams. Many CA units' members are within a 1-hour commute of their home station training center. Soldiers' equipment and most of the unit's assigned equipment is usually stored at the center. Once personnel are identified as team members, they would receive official notification letters to give to their respective civilian employers in advance of actual mobilization orders. Advance alert notification ensures employers understand the urgency of reservists leaving work with little or no notice in an emergency situation.

The QRT must receive the necessary training to perform disaster response and HA missions. Training should include military-related subjects, emergency medical procedures and first aid and disaster operations and strategic communications procedures. Team members should be processed in accordance with FORSCOM 500-3-3, *Forces Command Mobilization and Deployment Planning System (FORMDEPS)*, with only the final personnel actions held in abeyance until actual mobilization. All other requisite deployment preparation should be done in advance, including weapons qualification, the Army Physical Fitness Test, HIV screening and immunizations. Higher headquarters should periodically inspect and exercise the team to validate its readiness capabilities.

The team's equipment could be prepackaged to facilitate quick loading. This would include pre-

Proposed Training and Operations Associations

CA Brigades	ARC Regions	FEMA Regions
304th CA Brigade Philadelphia, PA	Northeast	Region III Philadelphia, PA
308th CA Brigade Homewood, IL	North Central	Region V Chicago, IL
321st CA Brigade San Antonio, TX	Southwest	Region VI Dallas, TX
322d Brigade Fort DeRussy, HI	Pacific/Hawaii	Region IX Hawaii
354th Brigade Riverdale, MD	Mid Atlantic	Region I Boston, MA
358th Brigade Norristown, PA	Mountain West	Region II New York, NY
360th Brigade Columbia, SC	Midwest	Region VII Kansas City, MO
361st Brigade Pensacola, FL	Southeast	Region IV Atlanta, GA
364th Brigade Portland, OR	Pacific	Region IX/X San Francisco, CA Seattle, WA

Figure 2.

positioning air load items and other blocking, bracing or tie-down items as needed. Necessary supplies—such as Class I, Class III, Class VIII and Class IX—could be preloaded and secured separately from the unit's operational equipment and supplies. Vehicle and personnel manifests for US Air Force or commercial carriers must be set up in advance and "quality checked" to save time.

Upon command channel notification, QRT members would be told when and where to assemble. Full-time unit support (FTUS) personnel would begin the assembly and load-out process while the unit begins to form. Transportation to the emergency site would be coordinated through the US Army Transportation Command, and the team would be given load and departure times. QRT members would then finalize their active duty call-up procedures and be ready to load the equipment on aircraft or road march to the disaster site as appropriate. FTUS personnel would then access mobilized reservists into the AC personnel system while the team is heading to the disaster location. This allows soldiers to quickly move to the disaster site without going from home station to a mobilization site en route.

Once on the ground at the emergency site, the QRT coordinates its efforts with civilian relief agencies or government officials and then provides an initial assessment to its chain of command to identify the need for follow-on units, by type or function, that would best serve the specific situation's needs. The QRT also serves as the advanced party for the remainder of the unit, which could then mobilize and deploy under the current FORMDEPS system.

CA units offer the NCA unique knowledge, skills and abilities in meeting both the domestic and foreign needs of the United States. The Total Force is better served if AC units are used in missions for

Training received through the ARC and FEMA opens the lines of communication between military and civilian agencies. FM 100-19, Domestic Support Operations, emphasizes mutual understanding, communication, coordination and liaison between military and civilian agencies as a key to success in providing effective domestic emergency response or support.

which they are trained, while RC units are best suited for short-term HA or DROs. The CA unit's ability to provide HA is directly related to the training and operational experience gained through its working partnership with the ARC and FEMA. This domestic partnership translates into related skills and abilities in working with similar local, regional, national and international relief agencies in emergency response situations.

This article offers several suggestions to better prepare CA units to meet their mission training requirements; improve procedures to employ trained units, both for foreign and domestic DROs; and better utilize RC forces during military force downsizing and mission shift within the Total Force structure. CA is an important combat multiplier, as well as an economy-of-force element for OOTW missions. As missions continue to shift and change, CA must be integrated into operations as early as possible and in a way that best utilizes its unique skills and abilities. By linking CA units and civilian agencies charged with domestic DROs, the United States' best interests are served. CA's unique capabilities support US national strategy and help maintain our reputation as a world leader through our ability to quickly deploy trained military forces anywhere in the world on a moment's notice. **MR**

NOTES

1. US Army Field Manual (FM) 41-10, *Civil Affairs Operations* (Washington, DC: US Government Printing Office [GPO], December 1985), 8-4.

2. FM 100-5, *Operations* (Washington, DC: GPO, June 1993), 13-5.

3. FM 100-19, *Domestic Support Operations* (Washington, DC: GPO, July 1993), 3-3.

4. *Ibid.*, 5-1.

5. *Ibid.*, 5-4.

6. *Ibid.*, 3-5.

7. Army Training and Evaluation Program (ARTEP) Mission Training Plans: ARTEP 41-701-30-MTP, *HHC, Civil Affairs Command*; ARTEP 41-702-30-MTP, *HHC, Civil Affairs Brigade*; ARTEP 41-705-00-MTP, *Civil Affairs General Purpose Battalion*; ARTEP 41-707-30-MTP, *General Support Detachment, Civil Affairs General Purpose Battalion*; and ARTEP 41-708-30-MTP, *Direct Support Detachment, Civil Affairs General Purpose Battalion*.

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The background of the page is a complex, layered illustration. At the top, a satellite with solar panels is shown in orbit. Below it, a film strip with various frames is draped across the scene. The central focus is a globe, which is partially obscured by the film strip and the title text. At the bottom, a detailed military map is visible, showing various units and tactical areas. The title 'Military Intelligence' is prominently displayed in the center, with 'Military' in a bold, serif font and 'Intelligence' in a large, outlined, sans-serif font.

Military Intelligence

The information age has had an irreversible impact on the US Army's approach to warfare and battle command, and promises to revolutionize the roles of command and control, communications and intelligence as future force multipliers. This section's articles suggest key ways to use intelligence in combined arms operations. Because information warfare development is accelerating, dramatic improvements in intelligence collection systems have greatly enhanced the availability of battlefield information. However, information has limited value until it is analyzed. Once analyzed, it becomes intelligence that must be integrated and synchronized to enhance and protect the commander's decision cycle and mission execution. As our authors suggest, we must accelerate our capabilities to integrate digital communications and intelligence to enhance decentralized mission execution and synchronization. Through internetted intelligence systems, commanders can use information age sensors to provide real-time images of the entire battlefield. Improved sensors will find, identify and accurately locate targets in depth. Increasingly lethal weapons will engage, overwhelm and destroy enemy forces in all types of weather and terrain. These expanded intelligence capabilities will allow commanders to successfully exploit their strengths and focus combat power on enemy weaknesses.

Intelligence Strategy for the 21st Century

Major General John F. Stewart, US Army, Retired

OUR NATION HAS endured much conflict in its history. Our freedom has been tested time and again on the world's battlefields and even here on our own soil. Throughout our history we have found success on the battlefield, partially because of our nation's moral and intellectual strength, but also partly due to an ability to quickly conquer each new age and its type of warfare. To preserve the freedom we enjoy, we must now face a new challenge—information warfare. According to Alvin and Heidi Toffler in *War and Anti-War*, we can no longer limit ourselves to fighting in the agricultural or industrial age. We must be prepared to fight in all three: agricultural, industrial and information.

During the American Civil War, Major General Thomas J. "Stonewall" Jackson was able to roll up the Union Army's flank at Chancellorsville, Virginia, because his intelligence sources were able to locate the enemy. In that era, slow-moving forces, relatively small in size, had to find their enemy and attack on "good ground." Intelligence meant locating the enemy on "good ground."

As society moved from the agricultural to the industrial age, so did warfare. World War II and the Cold War are our clearest examples of this age. They were characterized by mass and the need to locate the enemy and describe his capabilities and, if possible, his intentions. As information gatherers, we did this well. We knew how many soldiers would exit the back of a Soviet BMP infantry combat vehicle and which way each would turn upon exiting at the objective. We knew the accuracy and range of artillery and surface-to-air missiles. With varying degrees of certainty, we even knew the enemy's intentions.

Now, we enter the information age. To be successful, battlefield commanders must attack the enemy commanders' ability to make decisions and dis-

seminate them. We must get inside the enemy's decision cycle, and at the right time, we must be able to disrupt it.

Rethinking Our Doctrine

Over the last several years, the Army intelligence model has changed to reflect the new warfighting doctrine that will take us into the 21st century. In fact, based on modern warfare's changing nature, the intelligence community has been out front driving that change. This article will discuss why we have changed our intelligence paradigm and how those changes affect systems, organization and doctrine.

The intelligence focus has changed. Our motto used to be, *Intelligence is for the Commander*, which implied intelligence was information provided to the commander by someone else. We have changed that. According to US Army Field Manual (FM) 34-1, *Intelligence and Electronic Warfare Operations*, our new motto is, *The Commander Drives Intelligence*. It represents a simple change in words but a massive change in how we do business. This change, driven by years of experience, tells us that when the commander is in the center of intelligence, identifying what he needs to know, planning how it will be collected and allocating collection resources to meet his needs, we are all successful. When the commander is not involved, we are not. The bottom line: The commander must drive intelligence to be successful on the battlefield.

Knowing there were drastic changes in warfighting requirements on the horizon—not just from the former Soviet Union's collapse, but from technology, global politics, domestic pressures and more—the Army began to reexamine its intelligence model. Starting with the Army Intelligence Master Plan in 1986, through Operation *Desert Storm*, and beginning in earnest with the "Military Intelligence (MI)

Relook," which scrutinized the entire organization, structure and direction of Army intelligence, we looked at the concepts—the vision—guiding our operations and how MI needed to change to support

We adopted a force-projection strategy that called for rapidly deploying combat forces from mostly the Continental United States to a conflict or crisis area. Because of this force-projection focus, we recognized that intelligence is always engaged. With mission proliferation that the Army and all Department of Defense forces now support, from humanitarian aid, peace-keeping and disaster relief to combat, we are always engaged on the operational continuum between peace and war.

Force XXI operations. After completing the Force Design Update and MI Functional Review in 1993, we began implementing the new MI Concept, all based squarely on the Army's warfighting doctrine contained in FM 100-5, *Operations*, which gave us a whole new MI strategy for the 21st century.

Force projection. With the changing size and placement of US forces, we adopted a force-projection strategy that called for rapidly deploying combat forces from mostly the Continental United States to a conflict or crisis area. Because of this force-projection focus, we recognized that intelligence is *always engaged*. With mission proliferation that the Army and all Department of Defense forces now support, from humanitarian aid, peacekeeping and disaster relief to combat, we are always engaged on the operational continuum between peace and war. These crises can erupt quickly and require rapid force projection. Operational necessity dictates that it is too late to begin building an intelligence base once the crisis begins. The intelligence effort must begin well before the crisis. Therefore, intelligence readiness must be continuous and must apply to all intelligence units and commanders.

Command and control (C²) warfare. A second genesis in the intelligence concept is warfare's changing nature. In *War and Anti-War*, the Tofflers describe society's movement into the information age. They describe a "Third Wave" society where information, vice mass and production, holds the key to power. The massive changes in technology, and how the world works in general, have made it essential for us to fight differently as we enter this third wave.

This was never more clearly demonstrated than during Operation *Desert Storm*. As the operation's senior Army intelligence officer, my opinion is that one of our greatest successes was our ability to blind the enemy. Using intelligence from all levels and striking at the Iraqi forces' nerve center, we were able to defeat their C², making it impossible for them to react. When we attacked from the west, the Iraqi units were frozen in place. Many were facing the wrong direction and all were lacking guidance or intent from their senior leadership. Information is the currency of victory.

New Realities and the Effect on MI

I will now describe how the Army sees intelligence doctrine being executed under Force XXI. First, planners must realize that a force-projection Army's intelligence—including tactical intelligence—will come from the top down until forces enter the objective area. The 10th Mountain Division (Light) could not collect tactical intelligence on Haiti from Fort Drum, New York. The division did not have the assets. Still, before they deployed, they needed intelligence to a level of specificity not normally associated with national collection.

Similarly, if we were to conduct operations to seize the Sarejevo Airport and extract forces, the commander in Germany would have to rely on national and theater intelligence assets to provide the necessary tactical information. National and theater agencies would be tasked to provide information such as the height of the concertina around the airfield, where individual and crew-fighting positions are, what telephone and electric wires will interfere with rotary and fixed-wing operations and so on—questions normally answered by tactical units on the ground. After entering the objective area, organic intelligence collectors provide valuable, timely intelligence collection, but national and theater assets continue to support the mission. Initially, intelligence is top-down driven. Once tactical units arrive, intelligence collection and dissemination become top-down and bottom-up driven.

Force projection forces us to redefine intelligence readiness. The old paradigm assumed intelligence would be there—given to units upon alert. We had great data on the Soviets and spent billions of dollars collecting it. Tactical units did not have that data, but they expected to get it when they went to war. Smaller threat areas such as Grenada and Panama were followed, but not very well. We assumed we could fill the intelligence gaps when and if we needed to. From personal experience, I can tell you we played contingency catch-up in Grenada, Pan-

US paratrooper with Saudi national guardsmen during the opening days of Operation *Desert Shield*, August 1990.

US Army



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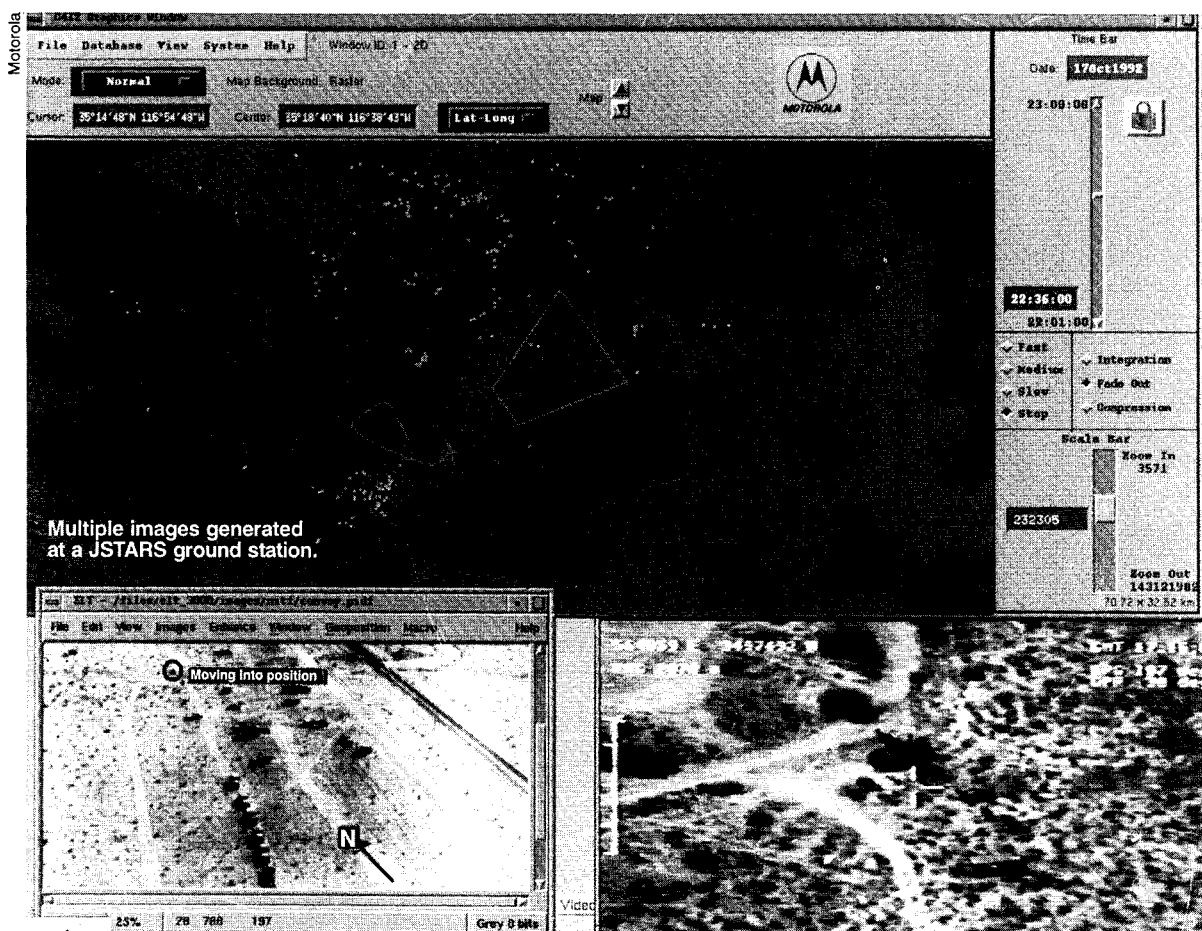
ama and even the Persian Gulf. But at the time, the threat from the Soviet Union was so large, it was only natural to assume risk elsewhere.

Today, all that has changed. No threat looms so large to justify neglecting other contingencies. Our readiness is now mission-based vice threat-based. Tactical unit commanders are required to be continuously involved in establishing intelligence priorities for their contingency areas. The goal is to develop a 70-percent solution over the maximum contingencies possible. Then, during crisis surge, the intelligence effort is focused downward to support the tactical commander.

For example, the III Corps commander has a contingency mission in Korea. National, theater and tactical systems are collecting intelligence there all the time. Even though he is at Fort Hood, Texas, he must, and does, personally influence the priority

intelligence requirements (PIR) for Korea. The challenge is to get the collectors to respond to that contingency and transmit the intelligence back to III Corps Headquarters daily during peacetime.

An old adage says if you prepare for 100 contingencies, you will be called out on number 101. The fact is, that is probably the case. However, if commanders drive intelligence requirements at the tactical level on a daily basis, planners and intelligence collectors can properly collect and prioritize that intelligence the commander needs most. Once people get used to assimilating national-, theater- and tactical-level intelligence, they can use the architecture already in place to communicate the intelligence gathered, regardless of location. This will allow us to "spin up" past our 70-percent solution in any conflict or area facing us. This new intelligence readiness definition tells the commander to



Multiple images generated at a JSTARS ground station.

Commanders play the greatest role in making intelligence work. We owe it to them to ensure they are prepared for this tremendous task. Once commanders see the system's inherent power and realize their PIRs are actually being filled, they will be more apt to use it.

Since the brigade commander needs balanced support that is effective in any environment, our modernization strategy called for an open architecture the commander himself designed that would ensure joint through tactical connectivity.

use the information available every day, regardless of where you are, to prepare for where you might be.

For MI professionals, this means intelligence and electronic battlespace are part of the global information environment. The powerful US intelligence system, the best the world has ever seen, must be brought to bear to provide a common battlefield picture to the commander. This happened in *Desert Storm*. One of our missions was to locate and destroy the Iraqi forces' C². The data used to carry out this mission was collected and processed all over the world. Little was collected from within theater, yet it was accurate and the mission was successful.

In the future, can our unit analysts handle this much intelligence information? Using the All-Source Analysis System, US forces have access to multiple data bases and national, strategic and tactical intelligence. Using the latest technology, they can fuse this

data into a relevant common picture far faster than any human could. While the battle command system allows the commander to see his force through horizontal information integration, the intelligence system must be both horizontally and vertically integrated. To develop the picture the commander wants, his analysts must be able to reach into data bases at sister units and at the national and theater levels. They get the intelligence the commander needs by "dialing up" other data bases according to his PIR and pulling the intelligence into his common picture.

Five MI Doctrinal Principles

In order to adapt to a force-projection Army and respond to the realities already discussed, great soldiers, civilians and leaders at all intelligence levels have developed five doctrinal principles—all of which have sprung from the intellectual



1st Cavalry Division soldiers prepare an RPV for launch at Fort Hood, Texas.

This new vision has been implemented in various experiments and will continue to be fielded over the next several months and years. ASAS has already been fielded by III and V corps. UAV and the Joint Surveillance Target Attack Radar System (JSTARS) are in the pipeline. More important, commanders are sold on the concept and are putting the emphasis where it needs to be to bring this revolution along.

change just discussed and are included in FM 34-1.

- The commander drives intelligence.
- Intelligence and electronic warfare (IEW) synchronization means delivery of the right intelligence at the right time, while recognizing the limits of our sensors and people. The commander brokers the requirements, and as they change, he is kept aware of the impact those changes have on intelligence production. Synchronization links dissemination, analysis, processing and collection with specific, timed requirements that support decisions the commander must make.

- Broadcast intelligence allows commanders, regardless of echelon, access to hovering sensors. Commanders determine their PIR, dial up the data base or sensor for the data and have it broadcast to them.

- MI can no longer support each mission with the same intelligence assets. Some contingencies require more human intelligence (HUMINT); others require more signals intelligence (SIGINT); but all require the ability to secure intelligence in a joint and combined operation. To support force projection, deployed intelligence assets must be built from the bottom up—tactical tailoring—and must have the ability to push and pull intelligence with common communications and interoperable systems across all echelons. To tailor our force, we have developed several support tiers based on the unit's conflict stage. Each tier includes a stepped level of intelligence support, which is flexible and can be applied together or separately depending on the mission.

- Conduct uninterrupted operations in a split-based configuration. Because forces are tailored from the bottom up, we must provide the tactical commander access to our powerful intelligence system, but in a small enough package to actively support all ground elements.

To guarantee a continuous flow of national and theater intelligence to the tactical commander and to preserve the commander's ability to "dial up" the intelligence he needs, we have developed the Deployable Intelligence Support Element (DISE). This small, flexible and scalable high-tech element goes in with the projected force and maintains a continuous link to a dedicated base outside the operations area. This concept was used in Somalia and Rwanda by deploying HUMINT-heavy packages, tailored to the mission, that maintained an ability to tap into data bases all over the world. The DISE is not a concept, but an operational reality supporting the Force XXI commander on the battlefield today.

Bringing Concept to Reality

Now that the MI Concept has been successfully employed, a remaining task is to train soldiers and leaders how to use it and ensure they can successfully activate it on a daily basis. The US Army Intelligence Center, Fort Huachuca, Arizona, is concentrating on doctrinal implementation and training to make this happen.

Doctrine. Building upon national military strategy and joint doctrine and driven by FM 100-5, MI

has developed a new series of manuals that codify the concept just described and its underlying imperatives. The Intelligence Center has recently published the following field manuals:

- FM 34-1: *Intelligence and Electronic Warfare Operations*, MI's keystone manual, describes the vision that drives IEW operations.

- FM 34-2: *Collection Management and Synchronization Planning* tells soldiers how to get

Intelligence did extremely well in Desert Storm. We had great intelligence at the army and corps levels and did pretty well getting that intelligence to division level. However, we did not do a great job of getting intelligence down to the brigade.

needed intelligence on time to fully support the commander's decision process.

- FM 34-7: *IEW Support to Low-Intensity Conflict Operations* addresses the almost endless variations operations other than war require us to face.

- FM 34-8: *Combat Commander's Handbook on Intelligence* is a pocket-size manual that aids combat commanders in using the intelligence system to best advantage.

- FM 34-130: *Intelligence Preparation of the Battlefield (IPB)* summarizes and reinforces the new MI vision, building on years of IPB doctrinal development.

In addition, FM 34-25, *Corps Intelligence and Electronic Warfare Operations*, is under revision to address technology—such as the Analysis and Control Element and the All-Source Analysis System (ASAS)—that brings our world-class intelligence system to the commander.

Training. Sound doctrine is not enough, however. We must train commanders, MI soldiers and leaders to practice and perfect doctrinal employment in their units daily. MI soldiers must be soldiers first—tough, resilient and ready to fight. They must possess the requisite skills to bring needed intelligence to the commander. The Army has brought new military occupational specialties (MOSs) into the inventory to keep up with emerging technology. Unmanned aerial vehicle (UAV) operators (MOS 96Us) are just one example. Additionally, our MOS-producing schools continue to stress the need for better language skills throughout the Total Army. With tough, realistic training, both at the training centers and in the units, we can usher in a whole new generation of MI soldiers

who are truly *Soldiers First and MI Second to None*.

The soldiers, sailors, airmen and Marines we train at Fort Huachuca today are brilliant and deserve the best leadership our officers and noncommissioned officers (NCOs) can deliver. The officers and NCOs who focus the Army's entire intelligence effort must rapidly synchronize collection and analyze intelligence products to bring the common picture into focus for the battlefield commander—and they must do it in joint and multinational environments.

The Army has taken great efforts to train its combat commanders. It is unrealistic to expect battalion commanders to drive intelligence if they do not understand our intelligence system and what it can and cannot do. Commanders play the greatest role in making intelligence work. We owe it to them to ensure they are prepared for this tremendous task. Once commanders see the system's inherent power and realize their PIRs are actually being filled, they will be more apt to use it.

We have placed a great deal of emphasis on this training and have dedicated major resources to making intelligence a main component at our combat training centers (CTCs), including the National Training Center (NTC) and the Joint Readiness Training Center. Through simulations and actual feed, the entire intelligence system has been put into the NTC, with the rotational brigade driving the intelligence effort, to include development of a commander's common picture using national, theater and tactical assets. Each battalion and brigade commander who moves through a CTC has the opportunity to drive the intelligence system the Army has developed.

Additionally, training at the general officer level has been vastly improved through the Battle Command Training Program (BCTP). It turned out ASAS was such a powerful fusion device that it gave commanders "perfect" intelligence. It can capture all data thrown at it, process it and quickly develop a battlefield picture. However, limitations on the system's ability to remain operational are now factored in, leading to much more effective collection manager and commander training.

Organization. Intelligence did extremely well in *Desert Storm*. We had great intelligence at the army and corps levels and did pretty well getting that intelligence to division level. However, we did not do a great job of getting intelligence down to the brigade.

Following *Desert Storm*, the Army took a hard look at the intelligence structure. We found a few things that needed realignment to keep pace with technological change and close the gap between echelons. We had to focus downward at all echelons.

The combat commander at brigade and below had to be a priority for army, corps and division intelligence assets. We had to ensure support was seamless but complete.

At brigade level, we had to balance the direct support the commander receives. The division MI battalion, which supports each brigade with a company, was so SIGINT heavy that when an adversary force was not heavily dependent on radios, we were without collection capability. This happened to some extent in Iraq. The Iraqi soldiers learned quickly that when they "pushed to talk," bombs fell. As a direct result, radio traffic volume trailed off considerably. Since the brigade commander needs balanced support that is effective in any environment, our modernization strategy called for an open architecture the commander himself designed that would ensure joint through tactical connectivity.

We are midway through this organizational transition, with the majority of new systems coming on-line during fiscal years 1995 to 1999. New systems such as Tactical Exploitation of National Capabilities (TENCAP), Ground Based Common Sensor, ASAS and Guardrail Common Sensor will be multifunctional, modular and graphic. In total numbers, we are downsizing from 34 systems to five, which in itself will improve interoperability, reduce cost and simplify training and maintenance requirements for the force.

So along with the revolution in warfare comes a revolution in how commanders view the battlefield with sensors and fused graphics. This new training-organization-modernization strategy's characteristics include:

- Focus downward on the brigade commander and below.
- Balance capabilities such as SIGINT, HUMINT, imagery intelligence and automated data processing.
- Connect the seams and achieve pull intelligence/skip echelon capability.
- Link joint and multinational intelligence to fill out the entire picture of the battlefield.
- Implement a new and flexible, yet high-quality

To guarantee a continuous flow of national and theater intelligence to the tactical commander and to preserve the commander's ability to "dial up" the intelligence he needs, we have developed the Deployable Intelligence Support Element (DISE). This small, flexible and scalable high-tech element goes in with the projected force and maintains a continuous link to a dedicated base outside the operations area.

language strategy maximizing the potential of our linguists and Reserve Component.

This new vision has been implemented in various experiments and will continue to be fielded over the next several months and years. ASAS has already been fielded by III and V corps. UAV and the Joint Surveillance Target Attack Radar System (JSTARS) are in the pipeline. More important, commanders are sold on the concept and are putting the emphasis where it needs to be to bring this revolution along.

In April 1994 at the NTC, I saw the intelligence system come together in Operation *Desert Capture II*. Although there are some things to work out, the system operated well. It worked on the move and allowed the brigade and even battalion commander to direct intelligence and pull the products they needed to fight. The objective is to routinely tie in all systems that power our intelligence assets to allow the brigade commander to see over the next hill. This is what we saw during *Desert Capture II*: national and theater intelligence—live and linked to the ground commander on the move, according to his PIR.

MI has a vision for the future, but combat commanders must drive that vision to conclusion. Our vision is doctrine based and focused down. It is in action at the CTCs, at the MI school and throughout the Army. On the information battlefield, intelligence is a combat arm. To win the information war now, we must forge ahead into the 21st century. Intelligence must lead the move to change because *the commander drives intelligence. MR*

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The Information and Intelligence Revolution

Colonel Richard F. Riccardelli, US Army

Cyberwar may be to the 21st century what blitzkrieg was to the 20th.¹

—John Arquilla and David Ronfeldt

MILITARY HISTORY IS replete with examples of how the distribution of new hardware technology often preceded doctrine. From 1841 to 1849, technological advances in weaponry included the conoidal bullet, an effective breech-loading rifle and breech-loading rifled field artillery.² The US Army entered the Mexican War in 1846 using General Winfield Scott's 1825 *Infantry Tactics* manual. Even by the start of the Civil War, the only standard manuals available were *Rifle and Light Infantry Tactics* and the 1841 handbook *Cavalry Tactics*.³

Between 1883 and the mid-1890s, the modern machinegun, high-explosive shell, Mauser bolt-operated magazine rifle, smokeless powder and quick-firing modern artillery were introduced. But it took the US Army until World War I to understand these developments' technological implications.

During World War I, the tank and fighter-bomber made their debuts. While the United States was slow to recognize these weapon systems' full potential, Germany exploited their capabilities early in World War II. In fact, until the re-publication of the Field Service Regulation in 1939—it was previously published in 1923—and subsequent wartime editions, the US Army did not integrate these technologies into its doctrine and training.

But integration began in earnest in 1939 when Generals George C. Marshall and Lesley J. McNair held large-scale maneuvers in Louisiana and the Carolinas as a laboratory and training ground to prepare the US Army for potential war. Today, "Louisiana Maneuvers" is the term the Army uses to define future doctrine in the same way the 1939 maneuvers prepared the Army for World War II.

In World War II, development of radar, advances

in radio communication, the beginnings of cybernetics and the deciphering of intercepted German (*Ultra*) and Japanese (*Magic*) messages were incredible, creative, innovative accomplishments in the history and paradigm shift toward information warfare.

Technological surprise is the most ominous aspect in this field. To meet World War II's challenges, the National Defense Research Council had overall responsibility for technological research and systems development. Divisions 13 (communications), 14 (radar) and 15 (countermeasures) were contributing agencies for equipment and research in electronic combat.⁴ Research was conducted at the Camp Evans and Camp Coles Signal Laboratories, the Aircraft Radio Research Laboratories and Harvard University's Radio Research Laboratories.⁵ Scientists developed new equipment, including multi-van radio intercept and direction-finding systems; portable radio direction-finding equipment such as the SCR 206; an expendable, parachute-delivered radio jammer known as CHICK (AN/CRT-2); and an expendable radar jammer dubbed RADAR CHICK (AN/CPT-1).

In early May 1944, a team of scientists from Division 15 went to England to form the American-British Laboratory Division 15 to prepare for the Allied invasion of Europe. Stationed at Great Malvern, Worcester, England, they provided technical advice and assistance in the "electron war."

The preparation and execution of the Operation *Overlord* invasion of France on 6 June 1944 offer a classic case study for information warfare campaign employment. *Overlord* relied upon detailed deception planning (*Bodyguard*), which included giving the Germans false clues that an invasion would occur in Norway (*Fortitude North*), at the Pas de Calais in France (*Fortitude South*), in Greece, in Italy and at the Bay of Biscay along the French coast.

Two phantom armies, the First US Army Group commanded by General George S. Patton Jr. and the 4th British Army, were established with mock training and garrison areas and phony aircraft, landing craft, tanks, radio communications and oil docks at Dover. Two dozen British officers spent months in Scotland exchanging false radio messages for the British 4th Army, stationed in Scotland and scheduled to invade Norway in mid-July.⁶

To ensure the Germans received the deception messages, the Allies relied on *Ultra* intelligence to read German communications. To ensure aerial photographs of the phantom armies did not expose the ruse, the Allies forced German reconnaissance aircraft to fly at more than 33,000 feet. At this altitude, they could not distinguish between real and decoy equipment.

Messages from the Germans' most trusted agents—their spies in the United Kingdom—were all written by the Allies. Through a program called the "Double-Cross System," many German spies were double agents and their signals to Germany conveyed a message crafted by British and US intelligence.

More than 2,000 Counter Intelligence Corps personnel in staging areas ensured security. Mail and official correspondence censorship was routine. All diplomatic correspondence out of Britain—except American or Russian—was censored.

To support *Overlord* planning, more than 250,000 reconnaissance photos were produced monthly. Beach intelligence began at D-150, and detailed maps to a scale of 1:5,000 were produced, along with models for tactical planners. At army group level, more than 1,100 mailbags of correspondence were received daily.

Without the sophisticated signal and computer systems available today, meticulous planning and a complex rehearsal system were used to horizontally and vertically synchronize the operation. Victory in these techniques would ultimately go to the nation that best utilized its brains, produced suddenly needed equipment fastest and played the game with the greatest ingenuity.

In preparation for the invasion, a joint US and British Radio Countermeasures Committee was set up. Their mission was to protect Allied signal frequencies while jamming and deceiving German radar and communications by *Luftwaffe* fighters that could find, disrupt and destroy the Allied naval flotilla crossing the English Channel. British naval and air jammers such as *Ground Cigar*, *Aspirin*, *Grover* and *Tuba* were used.⁷ In Operations *Taxable* and *Glimmer*, the British Royal Air Force

(RAF) even dropped chaff along the English Channel to simulate a naval task force movement toward the Pas de Calais in France. *Ultra* intelligence later revealed this operation was recognized by the Germans as a deception ploy.⁸

These information warfare campaigns deceived both Field Marshals Gerd von Rundstedt and Erwin

In World War II, development of radar, advances in radio communication, the beginnings of cybernetics and the deciphering of intercepted German and Japanese messages were incredible, creative, innovative accomplishments in the history and paradigm shift toward information warfare.

Rommel into believing the Pas de Calais was the main invasion objective. They also believed the Allies had an 89-division invasion force with enough landing craft for 20 divisions. In reality, there were 39 divisions and sufficient landing craft for only five.

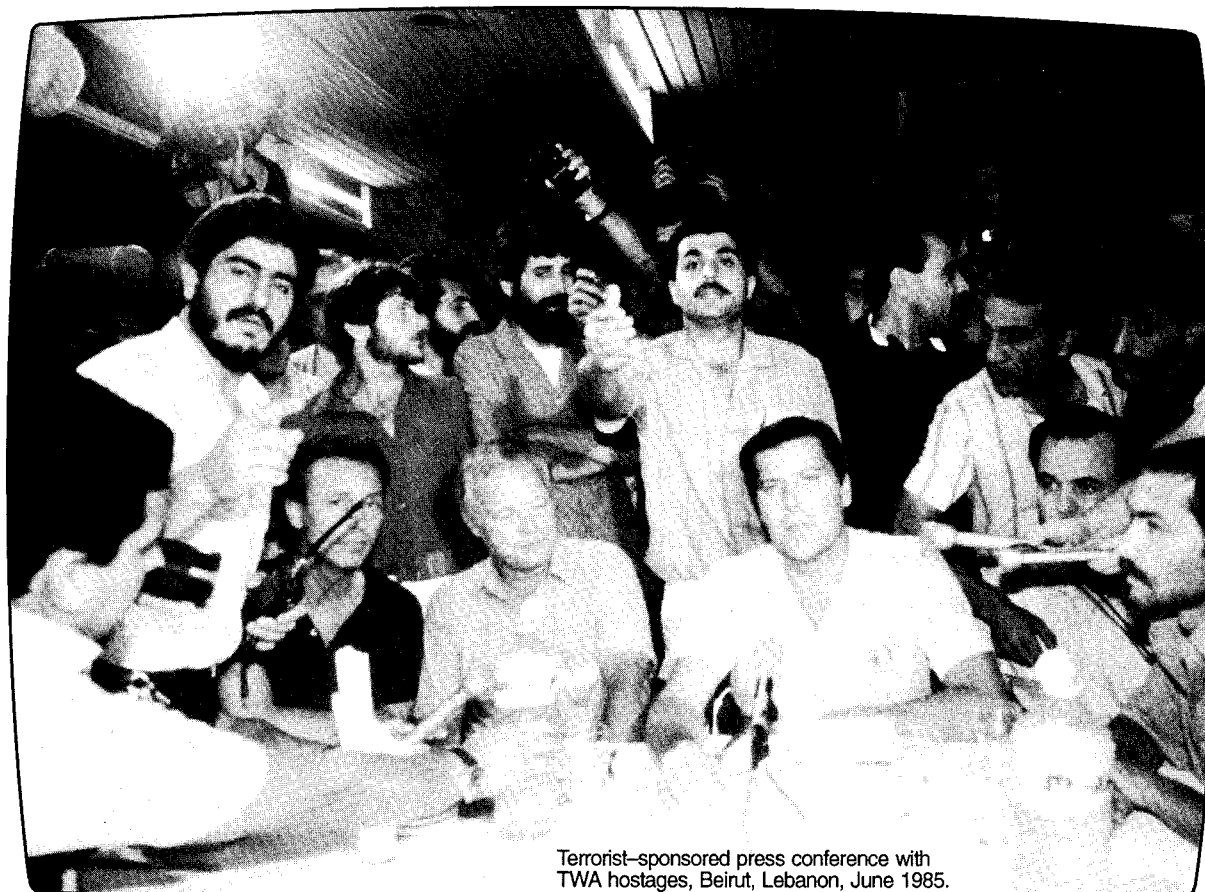
It was not until 1976 with General William E. DePuy's rethinking of doctrine and the subsequent remodeling of US Army Field Manual (FM) 100-5, *Operations*, and later, publication of "AirLand Battle," that the principle of applying new technology roughly kept pace. Today, information warfare and mass destruction weapons are provoking new thought on future warfare.

New examples and analysis of how information warfare influenced joint operations such as Operation *Just Cause* in Panama and Operation *Desert Storm* in Southwest Asia continue to grow in service publications, manuals and books.

Defining Information Warfare

Information warfare has been heralded as the dawn of a new revolution in military affairs.⁹ Described as battlefield digitization, Army Enterprise Strategy, cyberwar, soft war, electronic combat and many other snappy and image-provoking terms or phrases, information warfare is seen by futurists as a new era in the history of man.

Futurist Alvin Toffler offers an example of information warfare: "We know a former senior intelligence official who says, 'Give me a billion [dollars] and 20 people and I'll shut America down. I'll shut down the Federal Reserve, all the ATMs [Automatic Teller Machines]; I'll desynchronize every computer in the country.'"¹⁰



Bisson/Collectif. J. B. Pictures

Terrorist-sponsored press conference with TWA hostages, Beirut, Lebanon, June 1985.

The terrorists that stormed the American Embassy in Tehran . . . had their own cameras and microwave links to Iranian television. Using satellite broadcast technology available today, they could hold the United States public hostage through continuous "live" broadcasts. This hostile use of global television to shape another nation's will is described as "soft war."

During the coup attempt against Boris Yeltsin, former Soviet Union Foreign Minister Eduard A. Shevardnadze described this age: "Praise be information technology! Praise be CNN. . . . Anyone who owned a parabolic antenna was able to see this network's transmission and had a complete picture of what was happening." Paradoxically, the American Embassy in Moscow did not know what was going on; they did not have CNN.¹¹

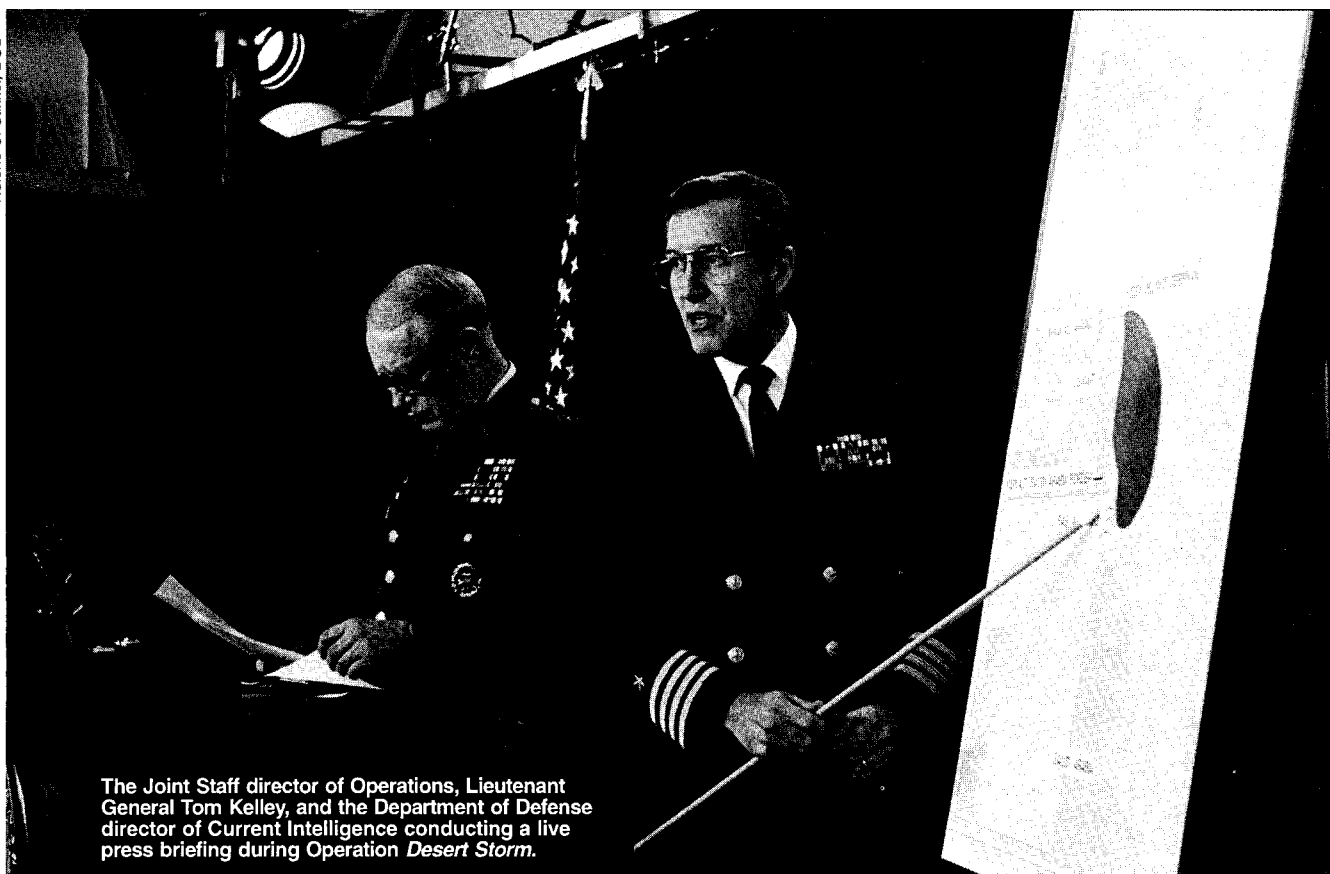
Lacking the precision of a commander's mission statement, information warfare is difficult to define. The National Defense University's Information Resources Management College at Fort Lesley J. McNair, Washington, D.C., defines information-based warfare as an approach to armed conflict focusing on managing and using information in all its forms and at all levels to achieve a decisive military advantage, especially in a joint and combined environment. Information-based warfare is both offensive and defensive in nature, ranging from measures that prohibit the enemy from exploiting information to corresponding measures to assure the

integrity, availability and interoperability of friendly information assets.

While ultimately military in nature, information warfare is also waged in political, economic and social arenas and is applicable over the entire national security continuum from peace to war and from "tooth to tail." Information warfare focuses on the commander's command and control needs by employing state-of-the-art information technology to dominate the battlefield.

Media, Cyberspace, Futurists and Technology

In his book *Earth in the Balance*, Vice President Al Gore contends that "We now face a crisis entirely of our own making. We are drowning in information. We have generated more data, statistics, words, formulas, images, documents and declarations than we can possibly absorb. And rather than create new ways to understand and assimilate the information we already have, we simply create more [information] and at an increasingly rapid pace."



The Joint Staff director of Operations, Lieutenant General Tom Kelley, and the Department of Defense director of Current Intelligence conducting a live press briefing during Operation Desert Storm.

Satellite broadcast systems have brought the media to anyone who can buy a satellite dish and receiver. Global television provides emerging powers with real-time intelligence of US government decisions—in effect, global television and digital telephone and computer networks have become a poor man's information warfare system.

The winds of information are blowing across the globe. Internet, a computer network, now reaches more than 100 countries and has almost 50,000 registered connected networks. According to Vint Cerf, Internet Society president, it is used on millions of personal computers and has been expanding at a phenomenal rate.¹²

Even in the Confederation of Independent States (CIS), an independent computer network called Relcom links Moscow with 80 other CIS cities. Relcom was an important source of information in Europe and the United States during the attempted coup against Yeltsin.¹³

Digital communications has become one of the most popular ways to set up telephone systems around the world. Even in so-called Third World countries, information technology is flourishing. There are nearly 500,000 cellular subscribers in Thailand, and in Hungary, 700,000 are waiting for telephone service. Western companies will be supplying their future needs with digital systems.¹⁴

In the United States, 622 million pieces of mail are posted daily; millions of faxes are sent; tens of millions of electronic messages are sent over local networks; between 20 to 50 voice messages per adult

are recorded daily; and the number of electronic mail (E-Mail) boxes will grow from 3.5 million to more than 40 million over the next 10 years.¹⁵

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Technology continues to sprint into the future. GM Hughes Electronics' DirecTV Inc. has provided a breakthrough in satellite broadcasts. This global broadcast service provides more than 50 television channels to anyone with an 18-inch diameter antenna dish in a 2,000-mile-wide "footprint" area, using video compression for moving and still images at ratios of 12:5 and 4:1 respectively.¹⁶ Engineers are now working on wavelet theory that will divide video images to compression ratios of 63:1 and 20:1 for moving and still images.¹⁷ Concurrently, microchip performance doubles every 18 months. This could lead to video teleconferencing for consumers; real-time, tactical reconnaissance for armies; and cheap intelligence and mass media propaganda

systems for hostile governments and "infoterrorists."

The terrorists that stormed the American Embassy in Tehran, Iran, in November 1979 had their own cameras and microwave links to Iranian television. Using satellite broadcast technology available today, they could hold the United States public hostage

Nonlethal technologies in development include high-power lasers to disorient pilots; sound generators that produce incapacitating pain; strobe lights that nauseate unruly crowds; high-powered microwaves that fuse radios and destroy artillery shell electronic guidance systems; and non-nuclear electromagnetic pulse for disabling enemy electronic systems.

Open-source intelligence will prove an invaluable information warfare tool. Access to media and "people" networks will add a new dimension, as well as a new danger, to future operations. New tools such as tactics, techniques and procedures guides are needed to access and assess reports from open and public domain information sources.

through continuous "live" broadcasts. This hostile use of global television to shape another nation's will is described as "soft war."

Information warfare is a part of nonlethal weaponry's futuristic arsenal. According to *Newsweek*, "The US Navy [during the Gulf War] launched cruise missiles that showered electrical generating plants around Baghdad with millions of tiny carbon filaments, which disabled Iraq's air defense system without damaging the plants themselves."¹⁸ Other nonlethal technologies in development include high-power lasers to disorient pilots; sound generators that produce incapacitating pain; strobe lights that nauseate unruly crowds; high-powered microwaves that fuse radios and destroy artillery shell electronic guidance systems; and non-nuclear electromagnetic pulse for disabling enemy electronic systems.

As described by Toffler, these new information technologies are leading to future warfare demassification. This battlefield dimension now includes land, sea, air and space. Satellites can provide broadcasting, imaging and Global Positioning System (GPS) capabilities that deliver precise target locations. This technology offers a "surgical kill" ability

not available in past wars. In 1881, the British fired 3,000 shells at Egyptian forts near Alexandria, with only 10 hitting the target. During the Gulf War, one US Air Force F-117 did the same damage it took US bombers flying 4,500 sorties and dropping 9,000 bombs to do during World War II and flying 95 sorties and dropping 190 bombs to do during Vietnam.¹⁹

Intelligence, Information Paradigm Shifts

Retired General Colin L. Powell, former Joint Chiefs of Staff chairman, purports that "From the commander's perspective, information received should provide an accurate description of friendly, enemy and neutral elements in an area of concern—the battlespace. To provide the information detail and quantity required, a distributed data base needs to be created from information provided by all available sources. Intelligence, operational, logistic and administrative information must be fused and distributed in such a way that it can be pulled from this global 'infosphere' on demand."²⁰

With the collapse of the former Soviet Union, the bipolar world's predictability has given way to one where civil turmoil and unrest are increasing and causing more, not fewer, wars. With 150 to 200 states today and hundreds of regions and entities without geographic boundaries, intelligence planners must be prepared to make sense of "fractals"—patterns of chaos—to do predictive intelligence.²¹ Fractals, as coined by mathematician Benoit Mandelbrot 20 years ago, are incongruous bits of information that paint a picture when viewed "holistically."

The boundaries between strategic and tactical decision making, as well as between intelligence and operations, will continue to blur. To shape the commander's battlespace view, the "coin of the realm" will be intelligence, battlefield and open-source information. These changes will require seamless access to information, from strategic to tactical echelons. Tactical Exploitation of National Capabilities and National Exploitation of Tactical Capabilities programs will merge into one interactive data base and system. This will require the requisite automation tools, intelligence collection disciplines and standardized displays, formats and procedures supported by adequate satellite bandwidth to provide a highway, not a trail, between echelons.

Open-source intelligence will prove an invaluable information warfare tool.²² Access to media and "people" networks will add a new dimension, as well

as a new danger, to future operations. New tools such as tactics, techniques and procedures guides are needed to access and assess reports from open and public domain information sources. To choose enemy activity indicators in a sea of information and streamline the "stovepipes and silos" of commands and bureaucracies for battlefield feedback are enormous challenges. To successfully manage chaos, the Army's doctrinal publications must be used as trusted compasses and guides.

On the digital battlefield and in coalition warfare, US and allied reconnaissance soldiers observing events requiring immediate action must be able to enter a seamless network to provide commanders and intelligence and operations personnel information about what they observe. A digital SALUTE—size, activity, location, unit, time and equipment—message could be quickly passed to commanders. This "information superhighway" from the battlefield will require new techniques in sorting the life-threatening observations from the trivial.

As America's Army enters the 21st century, people

The National Defense University . . . defines information-based warfare as an approach to armed conflict focusing on managing and using information in all its forms and at all levels. . . . Information-based warfare is both offensive and defensive in nature, ranging from measures that prohibit the enemy from exploiting information to corresponding measures to assure the integrity, availability and interoperability of friendly information assets.

will remain the Army's core during the revolution in military affairs. As Army Chief of Staff General Dennis J. Reimer has emphatically stated, "Soldiers are our credentials." An information warfare era will demand emphasis on innovation, skilled intelligence soldiers and a competent and capable Total Army team. The quality of training, personnel, morale and doctrine are more important than ever. **MR**

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What do you mean "The radio's down!"?

Major Daniel F. Moorero Jr., US Army

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DHAHRAN, Saudi Arabia, 0600 local time—General Horatio Scott, US Marine Corps, commander in chief, US Central Command (CENTCOM), is not normally an angry man. Wednesday morning, however, was different. It was a critical time for him and CENTCOM forces. Actively engaged in what has become known as the third Gulf War, Scott found he had limited communications with his subordinate commanders and the National Command Authority. And he knew if he was limited, commanders at the tactical level were in a bind. His communications officer assured him the situation would be resolved within the next several hours. Scott responded, saying, "By that time we may have lost the initiative and many soldiers' lives!"

Earlier in the week, solar observatories around the world monitored a particularly unstable area on the Sun's surface. Wednesday morning at 0525 local time, they reported that a major solar flare had erupted at 48 degrees west longitude on the Sun. Like bars on a jail cell, an enormous magnetic field normally holds the Sun's fury in check. Wednesday, it relaxed its grip, a few bars broke and the Sun belched an unimaginably large blast of radiation. Carrying emissions from up and down the electromagnetic spectrum, the blast raced earthward at the speed of light with the power of a billion hydrogen bombs.

Eight and one-half minutes later, an expanding wave of electromagnetic radiation washed across the Earth. Two components, X-rays and extreme ultraviolet radiation, streaked into the atmosphere, causing it to heat up and expand into space. Military satellite operators across the Earth activated their satellites' thrusters to maintain orbit and orientation as space that was empty suddenly filled with thick gas. The radiation onslaught ripped apart Earth's upper atmosphere, producing ions and free electrons and enhancing the ionosphere, a sphere of elec-

trically charged particles encircling the Earth. Almost immediately, high frequency (HF) communication across Scott's theater faded out. Other frequencies experienced heavy interference.

Observers recorded that immediately after the initial blast, a huge piece of the Sun's surface—many times larger than Earth—lifted off into interplanetary space and expanded outward on its own trajectory, slower but larger than its predecessor, like a giant radioactive amoeba.

Now, three days later, a plasma wall, the remains of that chunk of Sun, has slammed into Earth's protective magnetic field at a velocity of 600 kilometers per second, pushing it back toward Earth and exposing several military satellites to the blast's full brunt.

On the ground, Scott's forces are experiencing communications interference or complete failure. Digitally transmitted imagery is incomplete or distorted. Interference also affects the Global Positioning System (GPS) and other navigation devices, causing artillery fires to miss their targets and pilots to distrust their navigation instruments. Naval ship-to-shore communications are nil, and naval gunfire support for a Marine landing force is halted. Now, Scott's communications officer has the unfortunate task of telling his commander that the effects of the plasma wall will linger for several days.

ALTHOUGH SOLAR EVENTS like this do not occur frequently, they are not uncommon and come in many shapes and sizes. Our star, the Sun, goes through cycles—sometimes calm, often extremely violent. The outbursts, called solar flares, affect the Earth and its environs and can significantly affect military operations. Operations *Desert Shield* and *Desert Storm* occurred during a period of relative solar calm. Because of the Sun's 11-year cycle, however, military operations in 1998 and beyond will not have this luxury.



This photo composite depicts the size of the Earth compared to a typical solar eruption.

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As the American military presence abroad recedes, US Armed Forces are evolving into a force—projection military reliant more on technology than numbers to assure victory. Specifically, the services are becoming more dependent on space assets to maintain the US advantage in command, control, communications, computers and intelligence (C⁴I). It is imperative that we be prepared for any event that might lessen that advantage.

Our space assets are designed for space's extremely hostile environment. At frequent intervals, however, solar activity severely affects our defense's space component. This includes several US Space Command (USSPACECOM) force-enhancement mission facets, most notably navigation and communications.

This article highlights military terrestrial and space systems' vulnerability to powerful solar events and examines the potential vulnerability threshold for tactical and operational-level commanders. Specifically, it will describe solar activity effects on military positioning, navigation and communica-

tions. This article's purpose is twofold: to educate commanders and staffs at all levels and to encourage them to incorporate solar event warnings into command briefings.

Effects on Terrestrial Systems

Solar activity's more pleasing effects are the Aurora Borealis (northern lights) and the Aurora Australis (southern lights). These colorful, fast-moving displays appear harmless but indicate intense electromagnetic activity caused by the Sun. Solar activity causes electric currents to flow on the Earth's surface and in space. These, along with the corresponding disruption of the Earth's magnetic field, are known as "geomagnetic storms," which can cause power grids and electric power transmission systems to experience surges in electric power with damaging results.

For example, a major solar flare in March 1989 caused a powerful geomagnetic storm, which disrupted electrical power and blacked out most of the province of Quebec, Canada, and some parts of the

United States for 9 hours. Additionally, a large transformer at the Salem Nuclear Power Plant in New Jersey was permanently damaged, and a major power company had to remove a substation transformer from service because of intense heating. Other problems such as tripped relays, capacitor outages,

GPS works by transmitting a precisely timed signal from satellites through the ionosphere to receivers on Earth. During geomagnetic disturbances, the ionosphere varies in thickness and intensity, sometimes changing very quickly over large areas . . . [and generates] a variety of problems including signal fade, timing and position errors and signal lock loss.

Geomagnetic activity affects the ionosphere and changes transmission times between transmitters and receivers, causing position errors up to 12 kilometers.

transformer heating and wild voltage fluctuations occurred across the United States. Also, simultaneous power loss occurred at six different locations in Sweden.¹ These are interesting effects from a civilian point of view. From a military perspective, however, such solar events affect all components of USSPACE-COM's force-enhancement mission.

Effects on Positioning and Navigation

Four examples demonstrate the effects of solar and geomagnetic events on positioning and navigation systems: compass variations, Loran-C navigation system inaccuracies, magnetic survey inaccuracies and GPS problems.

The declination diagram on topographic maps shows the difference between true north and magnetic north in degrees and is commonly used to orient a map to the terrain. Solar-induced geomagnetic events can cause compass pointing variations of up to 10 degrees in the United States, Europe and all mid- and high-latitude countries. Numerous companies in several Northern Hemisphere countries have frequently reported difficulties calibrating high-sensitivity compasses. NATO exercises in the North Sea have also been affected.

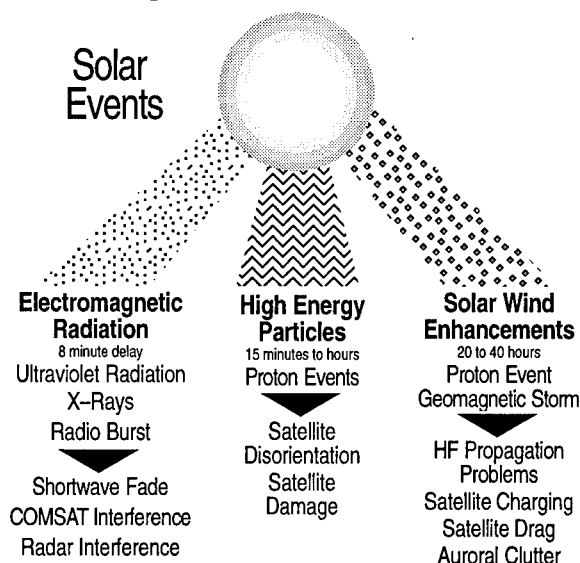
Very low frequency (VLF) signals are the basis for navigation systems such as Loran-C and Omega, civilian precursors to GPS. Geomagnetic activity affects the ionosphere and changes transmission times between transmitters and receivers, causing position errors up to 12 kilometers.

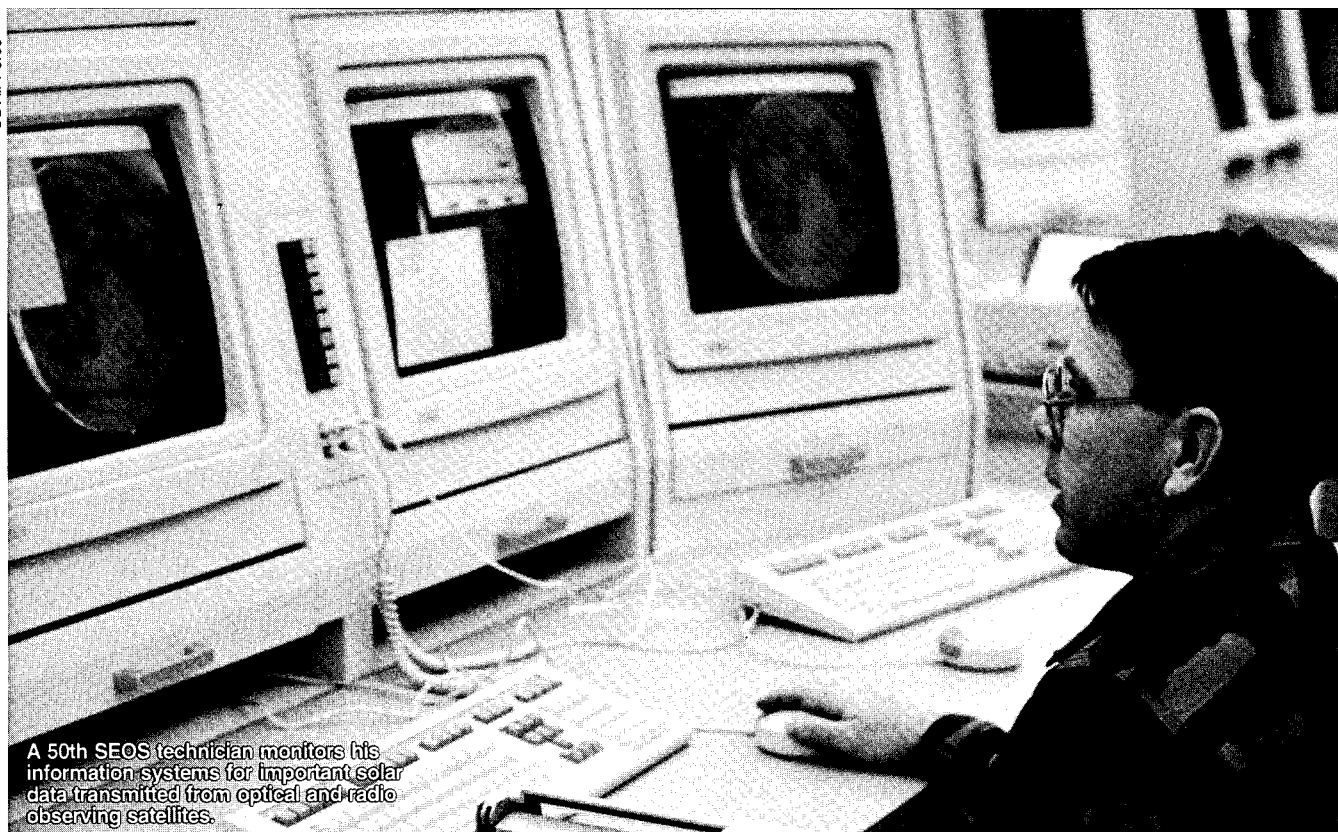
A magnetic surveyor is a sensitive device that measures the Earth's magnetic field as an airplane or ship travels back and forth across a certain area. Civilian companies use it to detect valuable resources underground. For the military, and in particular the US Navy, it can also detect foreign objects in the background field, including submarines far under the ocean's surface. Various solar events play havoc with the Earth's stable magnetic field and make these measurements extremely difficult.

The most recent addition to the positioning and navigation arsenal is the GPS. The space-based GPS constellation has recently been completed and includes 24 satellites and advertises 15-meter accuracy. Satellite lock with a minimum of four satellites is required to obtain a 3-dimension positional fix. GPS works by transmitting a precisely timed signal from satellites through the ionosphere to receivers on Earth. During geomagnetic disturbances, the ionosphere varies in thickness and intensity, sometimes changing very quickly over large areas. This causes electromagnetic signal "scintillation," a rapid fluctuation in the signal's amplitude, phase or polarization across all areas of the Earth's surface. These variations can produce a variety of problems including signal fade, timing and position errors and signal lock loss. All these cause position and navigation errors. Although the mechanism differs for each latitude, the net result is the same and may be solar activity's most significant effect on military operations.²

Effects on Communications

Solar flare activity can greatly alter the makeup of the ionosphere, making communication difficult and, at times, impossible. Some flare-induced effects





A 50th SEOS technician monitors his information systems for important solar data transmitted from optical and radio observing satellites.

The 50th Space Environmental Operations Squadron (50th SEOS), part of the 50th Space Wing based at Falcon Air Force Base, Colorado, is the only unit of its kind in the Department of Defense. Its personnel carry out their mission—to observe, analyze, document and forecast disruptive solar and geophysical events—with efficiency and, given the Sun's variable nature, with surprising reliability. Their systems gather information from a real-time solar optical and radio observing network and from satellites orbiting the Earth, ensuring 24-hour coverage of solar and other space environment activity.

occur with the first blast of radiation. Other effects occur three to five days later when the plasma cloud hits. At both times, an influx of electromagnetic radiation or energetic particles enhances the ionosphere, disrupting communications at all latitudes. Under these conditions, longer wavelengths (lower frequencies) will be absorbed. Shorter wavelengths (higher frequencies) that normally pass through the ionosphere may be reflected back to Earth. Enhanced ionization near the polar regions can wipe out cross-polar communication and seriously affect radar operations at those latitudes. Medium, high, very high and satellite communication (SATCOM) frequencies are affected.

Similar to VLF navigation systems, communication in the medium frequency (including AM radio) and HF realms is also affected by solar flares. Anyone who has worked with AM communication is aware of the problems periodically plaguing these systems. Military frequency users include cargo and transport aircraft and ship-to-shore communications. Other users include commercial aviation, international broadcasters, national security agencies moni-

toring foreign short-wave signals and frequencies used by the Federal Emergency Management Agency (FEMA). HF signals travel around the Earth by bouncing between the Earth and the ionosphere. Within minutes of a flare, X-rays enhance the ionosphere, causing an abrupt absorption of HF waves known as "short-wave fade." Only the Earth's sunlit side is affected but the fade can last from minutes to hours. A few days after the flare, when the plasma cloud hits, electric currents form and travel throughout the ionosphere, creating a geomagnetic storm that affects HF communications in the same way as a short-wave fade. The difference this time is the effects are felt globally at all latitudes. The same effect at high latitudes is called "polar cap absorption." The mechanism is different, but the result, degradation or complete HF communication loss, is the same.

Very high frequency (VHF) and Ultra high frequency (UHF) communications are normally line-of-sight. Military frequency users include all FM tactical communications within all services, most military aviation and most ground radars. Because solar flares enhance the ionosphere, VHF signals that

normally traverse a short distance now travel much farther, causing interference from transmitters normally far enough apart to negate interference. In other words, multiple in-theater users unhappily "share" a frequency. Additionally, solar radio noise may directly interfere with VHF and even UHF communication and may be so strong it causes signal loss.

One justification for moving military communications to higher frequencies is that this bandwidth is less susceptible to interference from natural sources. Extremely high frequency (EHF) radios have

Because solar flares enhance the ionosphere, VHF signals that normally traverse a short distance now travel much farther, causing interference from transmitters normally far enough apart to negate interference.

In other words, multiple in-theater users unhappily "share" a frequency. Additionally, solar radio noise may directly interfere with VHF and even UHF communication and may be so strong it causes signal loss.

recently been adapted for use at the tactical as well as operational and strategic levels. Military users include some SATCOM and all GPS operators. However, it is a mistake for soldiers to assume modern military tactical satellite (TACSAT) communications are infallible. Solar events can frequently affect satellite communications, causing difficulty in distinguishing the satellite signal from solar radio noise, creating problems with signal polarization and antenna orientation and leading to deep signal fading or complete communications loss.³

Satellite problems are often overlooked by tactical users. These include computer upsets caused by intense radiation and control problems caused by the blast of high-speed particles and the atmosphere's expansion. The tactical user assumes these are someone else's problem, but if they knock out *your* communications, they gain *your* immediate attention.

The Solution

The 50th Space Environmental Operations Squadron (50th SEOS), part of the 50th Space Wing based at Falcon Air Force Base, Colorado, is the only unit of its kind in the Department of Defense. Its personnel carry out their mission—to observe, analyze, document and forecast disruptive solar and geophysical events—with efficiency and, given the Sun's variable nature, with surprising reliability. Their sys-

tems gather information from a real-time solar optical and radio observing network and from satellites orbiting the Earth, ensuring 24-hour coverage of solar and other space environment activity. Their personnel produce a variety of reports. Units receiving these reports can request a specific product based on their mission, the theater in which they are operating and the weapon systems being operated. Some technical reports are designed primarily for radar and satellite operators whose systems' extreme sensitivity requires very precise information. Five general-use products, however, are written in plain language and would prove extremely useful to any communications, intelligence or staff weather officer: flare event warning, geomagnetic event warning, solar radio burst warning, short-wave fade advisory and seven-day outlook. A theater planning forecast may soon be available to inform commanders if the next several days are good or bad for operations from the standpoint of space systems' availability. A list of many other reports and formats is available from the SEOS.

The unit operates 24 hours a day, seven days a week and responds to requests for immediate support. During the Somalia deployment, SEOS Chief Scientist Kevin Scro took a call from a sergeant whose HF communication links with his soldiers were not working. Within 5 minutes, SEOS personnel analyzed the problem and provided the sergeant with a new frequency to reestablish contact.

An Air Force Space Command article titled "Space Assistance" recently appeared in *Guardian* magazine.⁴ The story was about the Joint Space Support Teams (JSSTs), which form a theater-oriented link between USSPACECOM and the regional and functional CINCs. The teams tell the warfighter what he can get from space and how he can get it, and they have gone a long way in improving the relationship between USSPACECOM and the eight unified commands. Recommendations for improving the distribution of solar and geomagnetic event warnings should start here.

Each team should have at least one member trained in space environmental effects in general and solar effects in particular. Training should include a class of at least a few days' duration. The SEOS offers a two-week class once or twice each year. JSST teams should take advantage of these.

Once trained, members should then train the trainer on visits to their respective theater headquarters. Training for theater communications officers, intelligence officers and Air Force staff weather officers should include: how to receive warning

information from the SEOS, telephone numbers, points of contact and briefings on the most likely solar effects on military operations in their particular theater. SEOS provides "theater-specific" information.

Each military service and theater should incorporate communication lines for transmitting solar and geomagnetic event warnings. At all levels, the fix is simple. One staff officer should have primary responsibility for procuring and briefing possible effects on space assets during future operations. The Air Force staff weather officer is a logical choice since he speaks the same language as the SEOS staff. As an alternate, the intelligence or communications officer might meet the requirement. The SEOS should prepare forecasts in plain language so trained personnel at theater and lower levels can stand up, brief and be understood.

The briefing format for these officers should include a new paragraph on expected solar effects on space systems. No commander wants to hear about "sunspots" after an operation begins. Therefore, the briefing's thrust should not cover solar events but, rather, how affected space systems will impact operations.

The vulnerabilities discussed in this article affect tactical commanders because major solar events during tactical operations can create serious positioning, navigation and communication problems. This is especially true now since US Army Field Manual 100-5, *Operations*, predicts a very fluid battlefield with great reliance on instantaneous communication and navigation. There is no reason operational units should fumble through alternate frequencies trying to find one that works. Likewise, there is no reason communications officers should blame difficulties on "sunspots" and no reason for noncommissioned officers to disassemble their communications equipment looking for electronic problems they will never find. If information on solar events and their effects

on military operations is forecast daily, all services and theaters can take advantage of them. Commercial industry and public utilities are already doing so.

Because of the changing international political environment, the US government has placed its military into a force-projection mode. As part of this

Each military service and theater should incorporate communication lines for transmitting solar and geomagnetic event warnings. At all levels, the fix is simple. One staff officer should have primary responsibility for procuring and briefing possible effects on space assets during future operations.

new strategy, a greater reliance on technology demands that tactical and operational-level commanders understand their systems' vulnerabilities. US forces are vulnerable to solar events and the corresponding effects they have on terrestrial and space systems. Recognizing this vulnerability is important as our Armed Forces become more reliant on space to support military operations. Recommendations for solving the problem are twofold: Train JSSTs and formalize the warning information flow into regular command briefings. The fix is simple, inexpensive and relatively easy to implement. Having this information, General Scott and his CENTCOM staff could have planned more effectively for solar interference. **MR**

Editor's Note: The 50th Space Environmental Operations Squadron can coordinate immediate support requirements 24 hours a day. Call DSN 560-6313 or commercial (719) 550-6313. Routine requests for support should be submitted through the SEOS staff by calling DSN 560-6332/2208 or commercial (719) 550-6322/2208. The mailing address is: 50th SEOS/DO, 715 Kepler Avenue, Suite 60, Falcon AFB, Colorado 80912-7160.

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MR World War II Almanac



Victory in the Pacific

Thomas D. Morgan

The US Navy's Battle of Midway victory in the summer of 1942 marked the turning point for US Pacific Fleet forces. By mid-1944, the backbone of the Japanese Pacific defense was broken when the Guam, Tinian and Saipan islands were seized. Tokyo was only 1,500 miles away—within reach of US B-29 bombers.

Supreme Commander of Allied Forces in the Southwest Pacific Area General Douglas MacArthur was island-hopping across the Southwest Pacific. Commander in Chief of the Pacific Fleet Admiral Chester W. Nimitz was doing the same across the Central Pacific. They joined hands at Leyte Gulf on 20 October 1944, fulfilling MacArthur's promise to the Filipino people to return. More island-hopping and bitter fighting lay ahead before MacArthur announced the Philippines' complete liberation in July 1945.

These victories did not come without cost. Earlier that year, the US Marine Corps took Iwo Jima, sustaining 23,000 casualties and 5,885 killed in the process. More than 20,000 Japanese were killed.¹ Nimitz said of the Marines who fought there that "uncommon valor was a common virtue."² Using Iwo Jima and Saipan as air bases, B-29s fire-bombed Japan's wooden cities, causing more damage than the 1923 earthquake—the worst natural disaster in Japan's history.

On 1 April 1945, US Army and Marine Corps troops invaded Okinawa—the last island before Japan, only 350 miles from the home islands. Okinawa was important to the Allies as an air base and staging area for the planned invasion of Japan. The Japanese knew this and made their greatest defense effort at Okinawa. There were more than 1,900 Kamikaze attacks against US land and sea forces during the campaign. The Kamikazes did severe damage, but ultimately, they failed to deter US forces.³ Japanese resistance on Okinawa held out until 22 June 1945. After the battle,

Japanese Commander Lieutenant General Mitsuri Ushijima and his chief of staff were found dead from suicide in a cave. During the 81-day Okinawa Campaign, almost 100,000 Japanese soldiers and 24,000 native Okinawans were killed. Only 7,400 prisoners of war were taken. US losses were heavy—70,000 casualties and 6,319 killed, including US Tenth Army Commander Lieutenant General Simon Bolivar Buckner Jr.⁴

After Okinawa's fall, formations of several hundred US bombers at a time laid waste to Japan's cities. In one Tokyo raid, 80,000 people were killed. In total, eight million people were displaced in Japan.⁵ The Allies remembered, however, that bombing alone had failed to cause Germany's surrender. Therefore, two great amphibious operations were planned for the invasion of Japan.

Operation *Olympic* would invade Japan's southernmost home island—Kyushu. Over 750,000 troops from General Walter Krueger's US Sixth Army were to make a frontal assault on 1 November 1945. The invasion's second phase—Operation *Coronet*—would invade Honshu on 1 March 1946. The equivalent of three armies comprising one million men and 7,000 airplanes, including 17 US First Army divisions from Europe, would take part in the operation.⁶

At this time, the four Pacific area commands were the South Pacific under Admiral William F. "Bull" Halsey; the North and Central Pacific under Nimitz; and the Southwest Pacific under MacArthur. In April 1945, all four Pacific area commands were coordinated under MacArthur for the final invasion of Japan.

Meanwhile, the Japanese were conscripting all males between the ages of 15 and 60. It was estimated they could mobilize about 70 divisions and 30 million partisans for the home islands' defense. More than 32 million potential militiamen and 10,000 Kamikaze planes were also

available. General George C. Marshall told President Harry S. Truman that he estimated between 250,000 and one million US casualties. MacArthur did not want to invade Japan unless the Soviet army was also committed to action against the Japanese in their puppet state in Manchuria.⁷

As early as July 1944, the enthusiasm in Japan to continue the war had lessened when the infamous General Hideki Tojo was replaced as Japan's premier.⁸ By the spring of 1945, a "dovish" coalition, influenced by Emperor of Japan Hirohito, concluded a peace treaty was the best way to end the war. By the end of July 1945, Japan's air force and navy were destroyed. Resistance was so weak, the US Army Air Forces announced bombing targets in advance so civilians could be evacuated. Halsey's Third Fleet struck the Tokyo area and Japan's coast with 1,000 carrier-based planes and heavy ships.⁹

Events had moved quickly. On 16 July 1945, the first atomic bomb was test fired at Alamogordo, New Mexico. By 26 July, the Allies at Potsdam demanded "unconditional surrender" of all Japan's forces, or Japan would face "prompt and utter destruction." On 6 August, the first atomic bomb, "Little Boy," was dropped on Hiroshima by the B-29 *Enola Gay*. It consumed most of the city.

On 8 August, the Soviet Union declared war on Japan. The next day, the Soviets unleashed their "August Storm" Offensive against the Japanese Kwantung army in Manchuria with 1.5 million Red Army troops. The Soviets' speedy advance on multiple routes preempted all effective Japanese resistance.

Meanwhile, receiving no surrender response from the Japanese government, the second atomic bomb was dropped. Nagasaki was the unlucky target when the B-29 *Bock's Car* dropped "Fat Man" on 9 August. It was even more devastating than the Hiroshima bomb. Eight days after



Following the surrender of Japan, 11th Airborne Division troops land at Atsugi Airfield, Yokohama, to begin occupation duty, September 1945.

the August storm began, Japanese defenses collapsed, and on 20 August, the Kwantung army surrendered.¹⁰

On 13 August 1945, one of the war's heaviest carrier-based raids hit Tokyo. On 14 to 15 August, the largest Army Air Forces raid of the war—over 1,000 B-29 bombers and other planes—hit Japanese population centers. Hirohito's surrender broadcast on 15 August brought the world's biggest war to a sudden end. Hirohito ordered his people to end hostilities and to "endure the unendurable and suffer the insufferable" at the victors' hands.¹¹ Radio Tokyo warned the Japanese of the imminent "barbarian" occupation. Women were urged to flee to the hills. Some female factory workers were issued cyanide capsules to be taken in case of US soldier assaults.

Truman rejected Soviet demands for a joint occupation of Japan and gave MacArthur complete control. MacArthur horrified his staff and the Japanese government by selecting Atsugi Airfield near Yokohama and Tokyo as the site for his "unarmed" arrival to accept the formal surrender. Atsugi Airfield had been a Kamikaze training site, and it was feared there were still some fanatics left. With the airfield secured by only a few hundred US 11th Airborne Division paratroopers, MacArthur and his staff arrived unarmed in his plane, *Bataan*, a few days before the formal surrender ceremony. More than 30,000 armed Japa-

nese troops lined the 15-mile route to MacArthur's first residence, the Grand Hotel in Yokohama. They were armed with rifles and fixed bayonets but faced away from MacArthur's cavalcade—a sign of submission and respect.¹²

Early Sunday morning, 2 September 1945, surrounded by a gigantic armada, MacArthur boarded the battleship USS *Missouri*, riding at anchor in Tokyo Bay. Along with nine Allied representatives, MacArthur invited US Lieutenant General Jonathan M. Wainwright, the hero of Bataan and Corregidor, and Lieutenant General Sir Arthur E. Percival, the defender of Singapore—both just released from Japanese prison camps—to assist him.¹³

At 0855, the Japanese delegation arrived after the chaplain's invocation and a recorded playing of "The Star Spangled Banner." MacArthur walked between Nimitz and Halsey to the surrender table. The first to sign was Japanese Foreign Minister Mamoru Shigemitsu, who limped to the table

on a wooden leg. Confused, he seemed to hesitate. MacArthur told his Chief of Staff Lieutenant General Richard K. Sutherland in a voice that rang out like a pistol shot, "Show him where to sign!"¹⁴

After the Japanese signed, each Allied delegate signed. The Allied delegates, in order of signing, represented the United States, China, the United Kingdom, the Soviet Union, Australia, Canada, France, the Netherlands and New Zealand. MacArthur signed last, using five pens—one each for Wainwright, Percival, MacArthur's alma mater the US Military Academy, the US Naval Academy and the last one for his family.¹⁵

At 0925, MacArthur concluded the historic 18-minute Japanese surrender with the words, "These proceedings are now closed." He went below and began his broadcast to the American people, saying, "Today the guns are silent."¹⁶ Some thought it was his greatest speech. A cloud of airplanes—Army Air Forces bombers and Third Fleet fighters—roared

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overhead and disappeared into the mist surrounding Japan's sacred mountain Fujiyama.¹⁷ With this final gesture, World War II ended.

The war had lasted six years—from 1 September 1939 to 2 September 1945. As estimated 55 million people died in a war begun with the invasion of Poland. World War II officially ended for the United States on 31 December 1946 when hostilities were declared terminated by presidential proclamation. **MR**

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MR Insights

Intuition in Modern Command Philosophy

Major B. C. W. McClean, British Army

Command, by definition, is "the authority vested in an individual for the direction, coordination and control of military forces. The three tenets of command are leadership, responsibility and decision making."¹ Within the military decision-making cycle, intuition's role should be considered. The most important advantage of reaching a decision intuitively, rather than by a consciously conceptualized process, is speed. Making speedy, accurate decisions in multiple battlefield scenarios is a war-winning command quality commanders should hone, and using intuition helps overcome the military decision-making timeliness problem.

Even if the commander's intuitive decision proves incorrect, simply making a decision faster than one's opponent may ensure initiative on the battlefield. The intuitive commander may have changed the battlefield, forced the opponent to revise his own plans because of changed circumstances and gained time to seek a more successful outcome. In short, he is "inside his opponent's decision cycle."

Intuition is perceived as being elusive to all but the most gifted leaders. Intuition is even described as "a fragile quality [that] can be easily undermined by stress, unreliable information or the overbearing pressure to make a rapid decision."² At this perception's heart is the failure of scientists to convince the military theorist

how intuition should be introduced into the formal decision-making process and used frequently and confidently by all commanders, irrespective of their intuitive perception abilities.

Anatomy of intuition. To understand intuition, one must understand the human brain's basic anatomy. Physically, the brain is divided into two parts—the left and right hemispheres—each handling different mental activities. The left brain deals with logic-based functions such as language, analysis, writing and mathematics. The right brain deals with creative activities such as imagination, color, music and rhythm.

"While the left half of the brain tends to analyze things in a linear, sequential manner, the right half deals with whole forms, especially visual and spatial structures."³ The brain's right half identifies how objects relate to each other, and therefore, it is better than the left half at recognizing patterns.

Both creative right-brain thinking ability and left-brain sequential analysis are important to commanders. A problem must be analyzed logically and systematically to ensure nothing is missed, but the subject being analyzed is itself spatial in nature—the battlefield. Mastering the battlefield's ground assessment, effective troop and resource deployment and predicting the battle outcome are the preserve

of the superior commander's creative ability.

Horizontally, the brain is effectively split into three parts: the spinal chord, the basal region and the cerebral cortex. The spinal chord deals with primitive processes, such as reflexes; the basal region controls involuntary processes, such as heart rate, breathing, hunger and sleep; and the cerebral cortex "receives and organizes incoming messages from the five senses; it manipulates the information along with similar data previously stored as memories; and it sends out motor commands to the various voluntary muscles of the body."⁴

Only cerebral cortex functions are consciously undertaken by the individual. The other two levels' functions are subconscious processes. The information identified by the body's senses—sight, sound, taste, touch and smell—does not necessarily pass through the conscious mind for processing. It may be acknowledged partly or totally only by the subconscious mind.

Intuition may be defined as "a pre-conscious [or subconscious] process of logical reasoning that has not manifested its effects in conscious, systematic form."⁵ The subconscious intuitive mind can think logically and make decisions without registering any processes in the conscious mind and with superior speed. If emotion caused by intuitive thought is strong

enough, it manifests itself in the conscious mind—"Intuition erupts into consciousness."⁶ "Gut feeling" is also used to describe intuition.

A mental condition called *incubation* exists from which intuitive thoughts tend to flow. Incubation is the period when one is away from a particular activity or concern and, without any conscious effort, the answer to a critical issue suddenly occurs. It is a short, relaxed, momentary period when a path seems open between the conscious and subconscious mind, through which valuable information flows. Researchers suggest incubation occurs momentarily in the developed intuitive mind during the activity requiring the decision. It is a "microscopic diversion of attention from the main activity."⁷

The intuitive expert. Complementary to the capacity to receive intuitive thoughts, intuitive thinkers should also be subject-matter experts (SMEs). The SME's vast subject knowledge ensures that "basic building blocks" are etched in the subconscious mind and do not require conscious thought to analyze. The SME's knowledge allows him to easily recognize patterns, dispensing with the need to consider a subject's individual components. This expert judgment is fundamental to the commander's ability and has been recognized as such for years. An SME can quickly impose meaning on a complex information pattern; exhibit extraordinary speed in performing mental tasks or solving problems; rapidly interpret and give meaning to information; and has superior attention and memory capacity.⁸

One significant disadvantage of intuitive decision making is credibility loss due to an inability to document the related intuitive thought processes. Commanders' decisions, especially those involving risk to life, are increasingly subject to intense scrutiny and criticism by the public and media. Decisions not supported by written proof or a sound, rational reasoning process are not likely to be credible.

Intuition and creativity are inextricably linked with so many common properties that developing these cognitive skills uses identical techniques and exercises. Intuitive thinkers, such as artists and writers, tend to be naturally creative. Unfortunately, indus-

trialized societies' educational systems place higher priority on developing the brain's left half to produce, for example, more and better engineers and scientists—often at the right brain's creative expense. However, it is possible to develop the brain's right half to educate the individual to become more creative, thus enhancing commanders' abilities to analyze complex battlefields.

Intuition can be developed given time and effort. Coupled with creative thinking, intuition can help commanders envision the battlefield spatially. First, however, we must view intuition's relative merits for the decision-making process and analyze the command philosophies and military decision-making processes into which it must fit.

Decision-making processes.

The US Army decision-making process is, in philosophy and procedure, based on mission command and the formal estimate. The staff undertakes the estimate process, with the commander making decisions at the appropriate stages and giving close and frequent guidance. Intuition is not systematically used in the estimate process. However, the Army's Leadership Assessment and Development Program (LADP) acknowledges intuition as a key leadership quality, especially for senior commanders, and actively encourages its development.⁹

The command estimate process has proved to be a valuable tool for making complex military decisions. It allows the commander to analyze in logical, sequential detail all available facts governing a decision. By institutionalizing the process, all commanders use the same procedure, thereby providing conformity and reducing confusion. Written evidence is also provided should the particular decision logic require further analysis. Since intuitive rationale cannot be analyzed later, the formal estimate process cannot be replaced with a

single unsupported intuitive decision. If time is available, the formal command estimate is the most acceptable method for reaching military decisions.

While conducting an estimate, myriad minor decisions are made at each stage, some requiring substantial deliberation. For example, when assessing the factor *ground*, the commander will make decisions on its infantry and armor suitability, the possible advance rate, the use of dead ground, and so on. Many decisions are formed as assumptions because intelligence is lacking on a particular factor. Other decisions are based on deductions from which tasks or constraints are decided. It is at this "molecular level"—the building blocks of each factor's individual analysis—that intuition can be used. Many decisions will be based on military experience and subjective judgment. But there may be cases where the commander just *feels* a particular course of action is right without conscious recourse to logic or military knowledge.

This is where the intuitive incubation process may be observed. When undertaking a complicated estimate, the commander may not always consider each factor conclusively before moving on to the next. He is more likely to jump around the estimate as new intuitive ideas about previous factors enter his conscious mind. Within the estimate process' detailed mechanics, intuitive thoughts are beneficial. The commander feels confident the correct deduction has been made and the appropriate task or constraint identified.

Timeliness is critically important. In many military scenarios, *time* is too scarce to conduct a full, comprehensive estimate. Shortcuts must be taken. This requirement increases as the command level reduces. At the brigade or division level, the commander's use of intuition will depend

Professional Skills Required in Senior Commanders

Conceptual	Competency	Communications
Decision making	Perspective	Interpersonal
Forecasting	Endurance	Listening
Creativity	Risk taking	Language
Intuition	Coordination	Teaching
	Assessment	Persuasion

on the time available, perhaps from complete reliance on intuition in tight situations to using intuition as only one of several decision-making tools in the formal written estimate. At the section or platoon level, where the commander receives changes to the tactical situation on a minute-by-minute basis, thinking time will be at a premium. Many decisions will be almost instantaneous.

Developing commanders' intuition. Developing commanders' intuition is highly desirable and can lead to more timely and accurate decisions. The US Army realizes this and has identified intuition as one of the professional skills to be developed in senior commanders, as illustrated in the accompanying figure.¹⁰ The scientific community does not yet fully understand the brain's anatomy or the mind's functions, and there is conflict on the exact processes to improve one's intuition. Consequently, methodology for improving intuition requires further development.

Military leaders should realize that the brain's right hemisphere requires development to reach its full creative and intuitive potential—and there are many mental exercises and techniques to accomplish this. A program for improving intuition should have three basic components.¹¹ First, to allow intuition to work, commanders must develop a full awareness of their cognitive selves to identify current intuitive abilities and the correct tools for subsequent development. Various test and exercise methods exist to identify individual intuitive abilities. For example, the Army LADP uses the Myers-Briggs Type Indicator (MBTI) test, which has proved reliable and valid for more than 50 years.

It is important within the working environment to reduce intuitive thought flow interference. Negative thoughts hinder creativity and intuitive thought. There are methods to dissolve mental blocks, from simply relaxing the working environment and encouraging brainstorming to using meditation and positive thinking techniques. Most techniques encourage managers to divert thoughts from the subject in question to more relaxed states of mind in which the intuition incubation period may activate.

Second, the commander must believe in intuition. Contemporary Western education focuses on left-brain skills and cognitive application. Right-brain creative skills, which include intuition, are neglected. An important first step is for individuals to acknowledge intuition's existence and potential. One must develop a clear reality perception, not a distorted ego view. This means undertaking exercises and open discussions about human behavior and thinking. Again, there are numerous tests, games and workshops available that can help develop sharp, intuitive perception.

Third, intuition must be cultivated and practiced. The brain must be exercised with regular frequency, weekly, if not daily. Exercises are beneficial if conducted with like-minded individuals following the same pursuit. Various methods exist for individuals or organizations to develop intuition through meditation, guided imagery, journal writing, mind mapping and seeking new situations or ideas.

The method private-sector firms use to cultivate intuitive managers is an intellectual test and exercise series, similar to the MBTI, conducted systematically in a Brain Skills Management Program. Direct results for firms using such programs are increased productivity and effectiveness. The Army's LADP is a comparable military equivalent. LADP relies on three assessment types: commander's self-assessment tests; associate's (peer) assessments where leaders look at themselves based on fellow students' opinions; and experienced and trained leadership assessor findings.¹²

Computers offer enormous potential for developing intuition and intellectual skills. Various intellectual tests and exercises to develop creative minds could be computerized and offered to students in a user-friendly manner to encourage interest and further learning and professional development. In particular, programs could be developed to practice military decision making and the estimate process. Graphics could show various battlefield scenarios for which military commanders would write estimates and plans. Estimates would be initiated by the program stating the mission, from which the commander

would derive mission analysis, deductions, tasks and constraints. During typical staff assignments, officers could routinely use the program to maintain and improve battlefield analysis skills.

Officers' decision-making abilities are fundamental command qualities, but current methodologies for considering and achieving decisions—the command estimate—lacks timeliness in some battle command situations. In the heat of battle, where thorough estimates are not possible, intuitive thinking is extremely valuable. It is doubtful that intuition will ever replace the complex estimate process, but enhanced intuition can speed it up.

Developing commander intuition is a method to overcome this weakness, but it is fragile and of inconsistent quality. If intuition could be used reliably by all commanders, their respective decision-making qualities would be significantly enhanced. Experience shows that intuition is a cognitive skill that can and should be taught. **MR**

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From My Bookshelf

General Barry R. McCaffrey, US Army

“*Military Review’s* request to share my favorite military books has given me several hours of reflective enjoyment and challenge. Reading military history has been a passion of mine since high school. As a military leader, I have benefited greatly from four decades of immersion in the thinking and battlefield experiences of other combat leaders. Here are my favorites.”

On War

by Carl von Clausewitz. Edited and translated by Michael Howard and Peter Paret.

If you wish to understand war, you must master the concepts contained in *On War*. It will take a month of intense part-time study to complete this complex work. Pulling your thoughts together in an essay will help. The payoff for understanding Clausewitz will be enormous.

The Killer Angels

by Michael Shaara.

The poetry and soul of the American soldier is woven into the pages of this beautiful novel about Civil War combat. Shaara’s gripping story explains why American military forces fight.

This Kind of War: A Study in Unpreparedness

by T. R. Fehrenbach.

This is the essential book for every US Marine and Army combat leader. Reading it can help a young officer define the purpose of a 30-year career. Keeping our military forces prepared to fight and win under the battlefield’s total brutality is our only reason for being leaders. Fehrenbach strips away the peacetime military forces’ illusions, reminding us of the bloody consequences of unpreparedness.

Once an Eagle

by Anton Myrer.

Myrer captures the American soldier’s inner spirit. He paints in vivid color the character principles essential to sustain a wartime army. He exposes the “careerism” that tears at the fabric of an army. This book is one of the most fascinating historical novels ever

written about our Army. Read it to discover the soldier you can hope to become.

Defeat Into Victory

by Field Marshal the Viscount William J. Slim.

This work by World War II’s best senior leader is worth a serious reading. Slim is an excellent example of a rare military genius who *got it all*. He understood common men at war and why they fought. He understood logistics and command. He had a sense for combined arms warfare. Slim was also the finest model of a man of honor—a civilized soldier at war.

Infantry Attacks

by Erwin J. Rommel.

This World War I combat study should be required reading for military cadets before commissioning. No one should command an infantry company without studying the lessons of one of history’s most brilliant and tactically creative small-unit infantry combat leaders. Rommel’s explosive energy, personal courage and sense of daring subsequently guided him to enormous victories in the fluid World War II armor battles of North Africa.

Common Sense Training: A Working Philosophy for Leaders

by Lieutenant General Arthur S. Collins Jr., US Army, Retired.

This is an essential training guide for all battalion and brigade operations officers. Collins’ classic book describes how to produce units able to execute their wartime and individual tasks. This remarkable volume captures the experiences of one of the great Army trainers.

Thud Ridge

by Colonel Jack Broughton, US Air Force, Retired.

Ground combat leaders depend on air power to survive and achieve victory. This powerful tale of air combat over North Vietnam strips away the romanticism of air warfare and reveals the exhaustion, fear, confusion, endless planning, technical complexity and lethality of air combat. Armor and infantry commanders who read *Thud Ridge* will look up at those fighter-bombers shrieking overhead with a deeper understanding and respect.

We Were Soldiers Once . . . and Young: Ia Drang—The Battle That Changed the War in Vietnam

by Lieutenant General Harold G. Moore, US Army, Retired, and Joseph L. Galloway.

This is the most gripping, revealing and realistic portrayal of small-unit infantry combat I have read. The courage, blood and confusion of violent, close combat engulfs the reader. The final chapters underscore the tragic cost of changed lives from the losses of young soldiers killed in action. This is a serious work that young combat leaders should read and learn from and policy makers should study.

Prodigal Soldiers: How the Generation of Officers Born of Vietnam Revolutionized the American Style of War

by James Kitfield.

This is the first book since 1965 to accurately capture how the US Armed Forces’ leadership culture works. It explains how we changed our doctrine, organization and training to produce the Gulf War miracle. It traces our Armed Forces’ transformation from Vietnam War failure to Operation *Desert Storm* triumph as seen through the eyes of the great reformers: General Donn A. Starry; General William R. Richardson; Brigadier General Huba Wass de Czege;

General Charles A. Horner; Admiral Stanley R. Arthur; and others.

The Diary of Anne Frank

by Anne Frank.

This book chronicles the evil and innocence of human life soldiers are sworn to protect. It is worth reading every five years to underscore a soldier's commitment to honor. **MR**

General Barry R. McCaffrey, US Army, is the commander in chief, US Southern Command, Quarry Heights, Panama. He received a B.S. from the US Military Academy, an M.A. from American University and an Honorary Ph.D. from Norwich University. He is a graduate of the US Army Command and General Staff College and the US Army War College. He has served in a variety of command and staff positions in the Continental United States, Dominican Republic, Vietnam, Panama, Germany, Belgium, Saudi Arabia and Iraq, to include director for Strategic Plans and Policy, Joint Staff, and assistant to the chairman of the Joint Chiefs of Staff, Washington, D.C.; commander, 24th Infantry Division (Mech), Saudi Arabia; director for Strategy, Plans, Policy and Joint Affairs, Headquarters, Department of the Army, Washington, D.C.; and deputy US military representative to the NATO Military Committee, Brussels, Belgium.

Letters continued from page 3

conditions, day or night. An Army tactical missile can reach a target more than 100 kilometers away in minutes. "Sensor-to-shooter" time lines can be established, allowing almost instantaneous engagement of deep targets with highly precise and lethal munitions.

Planned developments in field artillery rocket and missile systems will enhance the Army's already formidable arsenal. Extended-range rockets and missiles will allow commanders to expand their battlespace threefold. Improved munitions, such as "brilliant antitank munitions," will give the artillery a deep, "hard-kill" capability against enemy armored forces. Enhancements to M270 launchers and fire control systems will significantly reduce fire mission processing times. The advanced field artillery tactical data system will provide digital connectivity to the joint force, enabling commanders to identify targets and clear and execute fires with hair-trigger responsiveness in support of any mission contingency.

As Congress continues studying the Armed Forces' roles and missions, we must focus on our most important mission—providing the means to achieve rapid, decisive victory. America's Army must continue to be a land power with unprecedented deep-strike potential to win on the Force XXI battlefield.

LTC James J. Carafano, USA,
US Army Field Artillery Center,
Fort Sill, Oklahoma

Anticipatory Self-Defense and International Law

Fourteen years ago on 7 June 1981, Israeli fighter-bombers destroyed Iraq's Osirac nuclear reactor shortly before it went "on line." At the time, the global community's reaction was

overwhelmingly hostile. The 19 June 1981 UN Security Council Resolution 487 strongly condemned the attack, stating, "Iraq is entitled to appropriate redress for the destruction it has suffered."

Looking back, Israel's defensive action looks very different. As is now well known, Saddam Hussein's reason for building a French-supplied reactor at his nuclear research center at Tuwaitha—about 20 kilometers from Baghdad—was to produce militarily significant plutonium amounts. The ultimate objective was to manufacture nuclear weapons that could provide Hussein with regional hegemony over Israel. Significantly, an Iraqi dictatorship with nuclear weapons would have had far-reaching global implications affecting not only Israel, but the security of other states dependent on Middle East oil.

Did Israel act illegally at Osirac? International law is not a suicide pact. Under the longstanding customary right known as "anticipatory self-defense," every state is entitled to strike first when the danger posed is "instant, overwhelming and leaving no choice of means and no moment for deliberation." This right is especially compelling today in an age of weapons of mass destruction when failing to pre-empt an adversary may cause annihilation.

Did Israel commit aggression at Osirac? Iraq has always insisted that a state of war exists with "the Zionist entity." It follows that since aggression cannot be committed against a state with which a country is already at war, Israel could not possibly have been guilty of such a "crime against peace."

Did Israel violate international law at Osirac? Fourteen Israeli aircraft took part in the raid—eight F-16 Falcons, each carrying two 1,000-kilogram bombs, and six F-15 Eagles

serving as escort planes. The reactor was destroyed without civilian casualties and before any radiation danger existed. Unlike Iraq's 39 Scud attacks on Israel during the Gulf War, which were expressly designed to harm innocent civilians, Israel's raid on Osirac was conceived for essential civilian protection.

Since Israel's 1948 establishment as a state, Iraq has conspired to destroy it. It joined several other Arab states in attacking Israel on its declared day of independence. While Egypt, Lebanon, Jordan and Syria went on to sign armistice agreements with Israel in 1949, Iraq has steadfastly insisted on a permanent state of hostility.

Overall, Israel's defensive strike on an outlaw enemy state preparing for extermination warfare was not only lawful, but distinctly law enforcing. Absent a centralized enforcement capability, international law relies on individual states' willingness to act on the global community's behalf. This is exactly what happened 14 years ago, when—with surgical precision—Israel's fighter-bombers precluded an Iraqi nuclear option.

Israel's citizens, both Jews and Arabs, and US and other coalition soldiers who fought in the Gulf War may owe their lives to Israel's courage, skill and foresight in June 1981. Had it not been for the brilliant Osirac raid, Hussein's forces might have had atomic warheads in 1991. Ironically, the Saudis are also in Israel's debt. Had it not been for Prime Minister Manachem Begin's resolve to protect his people in 1981, Hussein's Scud attacks on Saudi Arabia might have spawned immense casualties and lethal radiation.

With these facts in mind, it is time for the world community in general and the UN in particular to acknowledge the obvious: Israel's 1981 preemptive action did not violate civi-

lized international peace and security but was a heroic and indispensable law enforcement act. For the sake of future peace and law-enforcing self-help in world affairs, let us hope this acknowledgment is not too long in coming. As other states resort to

anticipatory self-defense to thwart unconventional aggression, such acknowledgment could provide an important incentive to do what is needed under international law. As the 21st century dawns, it is time to strengthen the commitment to self-

defense rights in world affairs that are designed to prevent aggression and assure national survival.

Louis René Beres, *Purdue University, West Lafayette, Indiana*, and Colonel Yoash Tsiddon-Chatto, *Reserve Israeli Defense Forces, Israel*

MR Review Essay

Civil-Military Lessons from Urban Disorder

Colonel William W. Mendel, US Army, Retired

FIRES & FURIES: The L.A. Riots by Major General James D. Delk, California Army National Guard. 376 pages. ECT Publications, Palm Springs, CA. 1995. \$28.95.

When the 1992 Los Angeles (LA) Riot was over, 54 people had been killed, 2,383 injured (221 critically) and 13,212 arrested. LA County withstood 11,113 fires and damage estimated at \$717 million. The LA Riot was bigger than either the 1965 Watts-LA Riot or the 1967 Detroit Riot. It lasted from the afternoon of 29 April until the morning of 4 May, with a gradual return to normalcy after that.

What many misunderstood to be just another race riot resulting from Black frustration with the Rodney G. King verdict, is more fully witnessed in Major General James D. Delk's *Fires & Furies* as a case study in urban warfare.¹ The book has important lessons for civilian and military leadership, and it suggests future military operations other than war (OOTW) trends.

Unemployment, broken families, poverty and tension between Blacks and Koreans were factors fueling the LA Riot. The repeated "short-version" videotape broadcast of King's police beating, with subsequent live coverage of the riot's first day, poured gasoline on the fire. Mayor Tom Bradley's comment the first day may have also inadvertently contributed to the unsettled atmosphere—"We will not tolerate the savage beating of our citizens by a few renegade cops."² *U.S. News & World Report* editors concluded, "The pre-

vailing view about its causes is flawed. The unsettling truth is that incompetence, alcohol, greed and hatred helped make it happen."³ Delk believes that ethnic street gangs were, by far, the most serious challenge law enforcement and military personnel faced during the riot. They were heavily armed criminal groups who sniped at police and National Guardsmen during the riot's initial five days.

Toward urban warfare. Delk reports that in the days just before the riot, Black gangs—the Bloods and the Crips—met to establish a truce. They wanted to devote their efforts toward killing police. The riot found them well positioned to press their street influence. Later, during the transition to normalcy on 7 or 8 May, the Bloods and Crips circulated a document calling for \$3.73 billion for law enforcement, educational, reconstruction and welfare programs. They suggested drug lords should reinvest their money in the city, while they provided matching AIDS research and awareness funds. "Meet these demands, and the targeting of police officers will stop," the gangs advised. By no means were all rioters from the Bloods and Crips. More than half those arrested were Hispanics, of which more than 1,000 were illegal immigrants.⁴

Delk does not credit the riot as having the intensity of house-to-house warfighting or imply that street gangs were intent upon supplanting constituted government. He does suggest the challenging nature of probable future civil disturbances in urban settings. As such, this book is useful to the military planner concerned with society's future military affairs.

Leadership, federalization and National Guard performance. Now retired from the California National Guard (CNG), Delk was the military field commander during the LA Riot before troop federalization. In *Fires & Furies*, he details LA County's course from the 29 April riot's eruption to its mid-May return to routine lawlessness.⁵ Against a chronological civil disturbance framework, Delk provides three subordinate themes for the reader's consideration. First, he describes top civilian leadership performance during the riot and its effects on the troops; second, he explains federalizing the counter-riot effort; and last, he offers his view of the National Guard's strong performance, countering disparaging media and post-riot assessments.⁶

Fires & Furies describes a void of capable and forthright civilian leadership at two levels. At the local level, the longstanding mistrust and dislike between LA Mayor Bradley and LA Chief of Police Daryl F. Gates is well known. Before the riot, Delk reports, the mayor and chief had not spoken in more than a year. Gates also did not get along with the senior LA County law officer, County Sheriff Sherman Block. It was Block who should have assumed operational control from the outset by setting up the emergency operations center (EOC), but it was Undersheriff Bob Edmonds who made the EOC operational. Mutual assistance issues among police agencies and the timely tasking of military units for law enforcement support took valuable time to resolve. If National Guard units were slow to deploy onto the streets, Delk suggests,

it was because civil officials did not effectively direct their employment.

At the state level, Governor Pete Wilson, along with Bradley, called for federalizing the counter-riot effort without consulting on-the-scene National Guard commanders, according to Delk. This reflects the schism "brewing between the governor and his National Guard for months, if not years." Delk describes a governor who neither visited his National Guard in the field nor allowed his adjutant general, Major General Bob Thrasher, direct access to his office. Understating the issue, Delk says, "This worked to their mutual disadvantage when tensions rose in April of 1992. . . . Guardsmen were shocked when their commander in chief went public to criticize them as they deployed into the streets."

Delk also adds, "Politics and egos had a significant impact on various important decisions made during the riot. . . . Sometimes senior officials merely wanted to appear fully 'in charge,' or posture themselves to take maximum advantage of the incredible number of media personnel in the area. At other times, decisions were made to help justify more questionable decisions made previously."⁷ Suggesting the governor's "bad judgment could be as simple as the insidious effects of cumulative sleep loss," Delk continues, "perhaps the advice [Wilson] received was less than the quality he deserved."

The military reader, however, will be less concerned with political bickering than with the difficulties bedeviling the military commanders who had to operate in a multiagency state and federal environment. The National Guard federalization issue caused great anxiety among the troops. Delk reports that during the riot, Warren Christopher, then chairing a police department citizen's commission, advised Bradley to call in the federal troops. Delk suggests that Christopher believed the National Guard would not be as effective as federal troops for the mission.⁸ However, Delk says calling in the federal troops was a mistake because the riot was over by the time they were federalized.

Further, plenty of National Guard troops were already available. The National Guard had 10,465 ground troops when it was subsumed by the

federal Joint Task Force (JTF)-LA headquarters. Put together by US Army Forces Command (FORSCOM) in Atlanta, Georgia, JTF-LA added 2,023 troops from the 7th Infantry Division (Light), Fort Ord, California, and 1,508 Marines from Camp Pendleton, California. The number of added federal troops was not significant, but it was enough to put a federal officer in charge.

Once federalized under JTF-LA, Delk asserts, the National Guard became less useful to law enforcement agencies because of its military active duty status under Title 10. JTF-LA subjected each assistance request to a nebulous test to decide whether it was a law enforcement or military function. "After federal troops were brought in, and the National Guard was federalized, only about 10 percent of missions [to support law enforcement] were approved" because of Active Component concerns of violating Title 10, which prohibits law enforcement activities—the presidential order was to restore law and order.⁹ This may have been an unnecessary constraint because, under Title 10, the Posse Comitatus Act does not necessarily apply in cases of "a sudden and unexpected civil disturbance, disaster or calamity."¹⁰

A disturbing aspect of Delk's story is his description of the arming order given by JTF-LA Commander Major General Marvin L. Covault, an Active Component officer. The National Guard had been fully armed for four days on the LA streets (Arming Order [AO] 5), showing excellent fire discipline and restraint under fire, when Covault arrived and ordered Guardsmen to sling arms and put away their ammunition (AO 1). He further ordered the Marines to go in units no smaller than platoon size.

According to Delk, "When questioned about [AO 1], the JTF-LA leadership explained [the] order should not be interpreted literally. We finally met with folks at JTF-LA, who explained again that what the order said was not what they really meant. We pressed for them to revise their order to say what they meant. They promised to do that, but their Staff Judge Advocate officers were 'still working the issue' some days later when the 7th Infantry Division returned to Fort Ord."¹¹ Delk concludes this was a "cover-your-ass

measure just in case someone killed somebody in error." More than a leadership problem, this shows the military's failure to confront compelling OOTW issues. Based on Delk's account, the reader will conclude federalizing the counter-riot effort was a mistake caused by the civilian leadership's lack of confidence in the CNG and an ineffective EOC that could not provide timely information or effectively direct troop employment.

Much of *Fires & Furies* is devoted to explaining the interagency environment into which the National Guard was thrust and the Guardsmen's subsequent outstanding performance during the riot. It is not an apologia for the National Guard senior leadership's failure to plan, train and equip for civil disturbance operations. Purportedly without support from his commander in chief and with little television, radio or print media support, it seems proper for Delk to stand up for his Guardsmen and tell their side of the story.

Operations other than war. Despite the author's bias in setting the record straight about the National Guard performance during the LA Riot, this is a very important book for the military professional. It shows that traditional thinking about civil disturbances and how the US military trains for riot control could be archaic. Troops were not deployed in wedge formations to break up demonstrations in the manner once practiced by soldiers. In the 1992 LA Riot, our troops confronted heavily armed gang members grouped in loosely knit alliances for vaguely agreed-upon purposes. Arson investigators announced there were 565 arson fires and 30 arson arrests. Remarkably, 55 of the first 57 buildings set on fire were Korean-owned. The street environment is different today than it was in Watts 30 years ago or during the 1960s antiwar protests.¹²

Brought face to face with this new reality, Delk quickly recognizes the need to support law enforcement authorities. He emphasizes employing well-trained troops under decentralized control for maximum military presence on the streets and suggests urban warfare training might be needed. "The only additional training that may have been desirable for some soldiers is what is called 'MOUT' training, short for military operations on urbanized terrain. Such

training is usually of lower priority for mechanized troops such as the [CNG's] 40th Infantry Division."¹³

The reader is cautioned that Delk presents a particularized viewpoint of the contentious issues, but as such, his story remains a fascinating account of the 1992 LA fires and furies. Delk's lessons learned are superb, and the thoughtful military reader will take advantage of them. They include unique aspects of organization, training, intelligence, command and control, logistics and public affairs. Delk provides excellent LA Riot military assessments in his two concluding chapters—"Politics, Egos & Controversy" and "Hindsight & Prospects." *Fires & Furies* deserves a place in the military reader's library. This book is handsomely bound, well written and meticulously pieced together. It includes useful appendixes, including military troop lists, LA County gang lists and troop rules of engagement.

Fires & Furies is a warning to US military leadership about the complex civil-military issues facing commanders and their troops in the OOTW environment. In civil disturbance operations, it is clear that police agencies cannot handle the situation alone. Soldiers will again be called upon for support. Whether the reader accepts the author's view of the 1992 LA Riot or sees the event through other filters, he or she will be well served by Delk's identification of critical civil disturbance and urban war issues. Perhaps there is still time to develop appropriate doctrine, organizations and training procedures to

counter this potential OOTW environment danger. **MR**

NOTES

1. MG James D. Delk, *Fires & Furies: The LA Riots* (Palm Springs, CA: ETC Publications, 1995). As Delk describes it, Rodney G. King was a 25-year-old construction worker on parole after serving part of an armed robbery sentence. In March 1991, after a high-speed chase by the California Highway Patrol, King was finally stopped by the Los Angeles (LA) police. At this point, a local resident videotaped the incident. The tape showed four police officers beating King after he lunged at them. The shortened version, showing only the beating, was shown on television the next day and for nearly a year after, until the April 1992 trial of the four police officers charged with assault with a deadly weapon and other violations. Because of the publicity, the trial was moved to Simi Valley in Ventura County. The media coverage caused expectations of a guilty verdict, but on Wednesday, 29 April 1992, the officers were found not guilty, with a mistrial declared on one charge. Mayor Tom Bradley "tended to inflame emotions" with his posttrial remarks about the defendants as being renegade cops who should be fired, saying no explanation makes sense for the jury's decision. The LA Riot followed.

2. *U.S. News & World Report* (31 May 1993), 39.

3. *Ibid.*, 35; and *Ibid.*, "A potent brew: Booze and crime," 57-58. "It was no coincidence that when the riot did erupt, both looters and arsonists made liquor stores a prime target. . . . South Central [LA] had a staggering 728 licensed liquor outlets—13 per square mile."

4. *Ibid.*, 55. Of the 5,000 looters arrested, 51 percent were Latino, of which 79 percent were foreign-born; 38 percent were Black; half of the 694 felons were homeless or had been at their residences for less than a year; 66 percent were unemployed; and 60 percent had criminal records. A stunning three out of five had dropped out of high school.

5. Delk, 336. "No one should take a great deal of comfort if riots don't explode again or if they are quickly squelched if they do erupt. More problematic is the possibility of further escalation of the endemic lawlessness that already exists every day and night in parts of LA. An average of [more than] four people are killed every day in the county."

6. LTG William H. Harrison, US Army, Retired, *Assessment of the Performance of the California National Guard [CNG] During the Civil Disturbances in Los Angeles, April & May 1992, Report to the Honorable Pete Wilson, Governor, State of California* (Sacramento, CA: The Governor's Office, 2 October 1992). This is a clear, well-written but narrowly focused report that targets the National Guard without much consideration of the civilian leadership's role or the efficacy the federal Joint Task Force (JTF)-LA headquarters that assumed command of the National Guard after federalization. See also *Fires & Furies*, 303. Delk contests the report's accuracy, saying, "Harrison's report has many minor errors, but none of them impact on his conclusions and recommendations, which faulted National Guard planning and determined that the response was slow." See also Harrison, 10-17. Harrison faults senior National Guard leadership for ignoring civil disturbance missions, stating, "Civil disturbance training was almost nonexistent even in units that were supposed to have conducted it [and] few units had civil

disturbance equipment." But he praises the "discipline of the individual [National Guard] soldier. . . . The record speaks for itself—only 20 M16 rounds were fired in three separate incidents; and every round was accounted for. In addition, [the LA Police Department] opined that every incident was justified based on the circumstance at the time and the actions of the antagonists."

7. Delk, 291.

8. Harrison, 23. "Mr. Warren Christopher, [then] a private citizen, first broached the subject of federal troops to the mayor's staff when he became concerned about the slowness of the [CNG's] deployment on the streets. Mr. Christopher had been intimately involved in the McCone Study of the [1965 Watts-LA Riot], and he expressed a concern that past mistakes not be repeated."

9. *Ibid.*, 24-25. "The deployment of federal troops and the federalization of the CNG received less favorable reviews [from law enforcement agencies]. While in state status, [the] CNG responded to every recorded request for assistance from local law enforcement. Once the CNG went into federal status, records indicate their response to requests from local law enforcement was reduced to about 20 percent. This reduction was attributed primarily to the restrictions placed on federal troops under the provisions of the Posse Comitatus Act. . . . The CNG was more responsive to local law enforcement while in state status than they were once they were federalized."

10. US Army Field Manual 100-19, *Domestic Support Operations* (Washington, DC: Government Printing Office, July 1993), 3-2.

11. Delk, 200; and Appendix 2, 341-43, provides rules of engagement and arming orders (AOs). AO-1 was rifle at sling-arms, bayonet in scabbard, pistol holstered, baton on belt, magazine in pouch, rifle chamber empty and officer or NCO [noncommissioned officer] in charge. By contrast, AO-5 was rifle at port-arms, bayonet fixed, pistol in hand, baton in hand, magazine in weapon, rifle chamber empty and officer or NCO in charge.

12. *U.S. News & World Report*, 53. Because of the absence of police, local gun stores could not be secured. One gun store lost 1,150 firearms during the riot's first night.

13. Delk, 322-23.

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Class No.	Class Dates	Class No.	Class Dates
96-04	07-12 Jan 96	96-09	16-21 Jun 96
96-05	04-09 Feb 96	96-10	14-19 Jul 96
96-06	17-22 Mar 96	96-11	18-23 Aug 96
96-07	14-19 Apr 96	96-12	15-20 Sep 96
96-08	12-17 May 96		

MR Book Reviews

DESERT WARRIOR: A Personal View of the Gulf War by the Joint Forces Commander by HRH General Khaled bin Sultan with Patrick Seale. 492 pages. HarperCollins Publishers, New York. 1995. \$35.00.

Prince Khaled bin Sultan Abd al-Aziz is a graduate of the US Army Command and General Staff College (USACGSC), Fort Leavenworth, Kansas. He is also a graduate of Sandhurst, the US Air War College, Naval Post Graduate School and Auburn University. This remarkable book covers his military career through the Gulf War, in which he shared the high command with General Norman Schwarzkopf.

The book is remarkable on several levels—the perspective it offers on US–Saudi relations generally and in the Gulf War and the view it provides of a prince of the Saudi Royal House. Khaled's book should admonish US readers to consider how we have appeared to a not unfriendly ally who knows us, perhaps, all too well. One noteworthy point not to be overlooked when comparing *Desert Warrior* to other Gulf War memoirs is that its copyright belongs to the Bosnian Children's Fund.

Prior to the Gulf War, Khaled, the son of Saudi Minister of Defense Prince Sultan bin Abd al-Aziz, was a man to be reckoned with. Commissioned upon graduation from Sandhurst, Khaled became an expert in air defense just when the Saudi military began modernizing its air defense missile system with HAWKS. By the time he was a 29-year-old lieutenant colonel and USACGSC student, Khaled was conducting contract negotiations with Litton Industries to develop Saudi Arabia's national air defense system.

Khaled understood many basic facts: that the Saudi air force would likely be kept in an inferior position to the Israeli air force by the vicissitudes of US domestic politics; that the 1973 Middle East War had shown missile air defense could be highly efficient, with significant strategic payoff; and that Saudi national pride demanded a new relationship between the Western

contractors and governments and the Saudi government, an adjustment Khaled could enforce monetarily.

In the first 152 pages, Khaled recounts how he sought to build an effective national air defense system, defend and reinforce his nation's world standing and ultimately turn the Air Defense Service into a highly effective, separate Saudi military arm. Ironically, the Gulf War convinced



him that offensive air power had reestablished the superiority it seemed to lose to integrated missile defenses in the 1973 Middle East War. Khaled also outlines his role in buying intermediate-range ballistic missiles from China—which King Fahd bin Abd al-Aziz later declined to employ in response to Saddam Hussein's Scud attacks. One can read no little frustration on the part of this soldier, who is clearly a Saudi nationalist, with what he believes to be a US double standard applied in Middle East affairs.

The book's second part addresses Khaled's role in the Gulf War. Though the war's outlines are now well known, Khaled's view is a useful corrective to one that has too often taken for granted our principal ally's participation. Khaled wrote his book to correct this view.

Khaled's central observation is that, "if the truth be told, the task we faced during the crisis was not winning the war against Saddam. Considering the coalition's overwhelming strength, that was the easiest part of it." The greatest challenge, in Khaled's eyes, was maintaining coalition harmony. Khaled's is a strikingly different view of the anti-Saddam coalition and of the skills required to manage a large coalition force of wildly heterogeneous detachments.

Khaled provides a new high-level view of the US theater commander, with occasional measured critiques of Schwarzkopf's memoir *It Doesn't Take a Hero*. Khaled's version of the turn-of-the-year blow-up between

the two coordinating commanders in chief, for example, indicates Schwarzkopf's well-known temper was not reserved entirely for subordinate officers unable to reply in kind. His cautious and diplomatic telling, in contrast to his US counterpart, extends sincere thanks to all who made this combined effort successful. He lays out disagreements with care and tact. Along the way, he corrects some factual errors appearing in Western accounts and fills many gaps in earlier books. Among these are his explanation of the Joint Forces Command organization, details of the evolving French coalition membership and specifics on the Saudi coalition logistic contribution, something alluded to frequently but nowhere else explained in such detail. Khaled suggests US leaders had to be reined in more than once in their expectation of Saudi largess. But he asserts that, distances and harsh climate notwithstanding, the Gulf War was a "quartermaster's heaven" thanks to Saudi facilities, resources and open-handed generosity.

Desert Warrior thoroughly addresses the Iraqi Scud attacks and coalition responses, and as expected, provides fuller Arab battle accounts than most Western histories. The narrative of the Al-Khafji battle at which Khaled was present and which, like General Bernard E. Trainor and Michael R. Gordon (*The Generals' War*), Khaled saw as pivotal, warrants its own chapter. In his chapter "Failure at Safwan," Khaled's criticisms of the manner and terms for ending the war substantially contribute to understanding the controversy over its unsatisfactory outcome.

The diplomatic care with which the book is written and the absence of documentation limits its value as objective history. But this is not a trait limited to royal princes' autobiographies, and indeed, the limitations seem to rise from noble motives. The account varies in no particular degree from other accepted accounts, and it is written with clarity and authority. *Desert Warrior* makes one wonder when Prince Khaled will join other

distinguished alumni in the USA-CGSC Allied Officers Hall of Fame and where this accomplished soldier-diplomat-prince will next appear in his own country's government.

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Retired, School of Advanced Military Studies, USACGSC

CHINESE INTELLIGENCE OPERATIONS by Nicholas Eftimiades. 192 pages. Naval Institute Press, Annapolis, MD. 1994. \$29.95.

For years, the Soviet Union monopolized our foreign policy, defense and intelligence attention. A benefit of the Cold War's end is the opportunity to reacquaint ourselves with many new foreign policy and defense issues. In *Chinese Intelligence Operations*, author Nicholas Eftimiades introduces a major intelligence concern. He contends the People's Republic of China (PRC) had tremendous clandestine activity success throughout the Cold-War years, almost unopposed in the United States and elsewhere in the West, and that we are not in a position to rectify the situation.

Chinese Intelligence Operations is a fascinating study detailing the PRC's intelligence community structure, its collection objectives and the intelligence service operations China has conducted or is likely to conduct, abroad and domestically. In a series of clear, well-organized chapters, Eftimiades explains how the PRC uses intelligence to support its national objectives; the identity and structure of the various civilian and military intelligence organs; actions against student dissidents in China and the West; illegal technology transfer methods—a primary focus of PRC intelligence; and future prospects. He includes a helpful glossary of intelligence terms and acronyms; detailed, clear organizational charts; and a substantial primary and secondary source bibliography.

China's intelligence activity is not an immediate US national security threat. China's primary focus is on acquiring midlevel technology. Its capabilities are clumsy, often reflecting quantity not quality of effort. Efti-

miades concludes, however, that this is a serious problem which cannot be ignored—half of all technology transfer cases investigated annually on the West Coast involve China. The results are not always negligible. China's neutron bomb, first tested in 1988, directly resulted from technology acquired from the California Livermore laboratory. Eftimiades also blames US ignorance of China for the PRC's success. While he expects China's capabilities to improve significantly, he sees no increase in the US ability to counter them.

The author, a Defense Intelligence Agency analyst, is an East Asian studies specialist with 10 years' intelligence community experience. His book reflects a strong sense of history, a deep understanding of China and intelligence expertise. His analytical skills, meticulous research and interviews with many Chinese sources, including diplomats, intelligence officers, students and businessmen, make this a highly credible work. Eftimiades does an excellent job collecting, presenting and interpreting his evidence. Chinese intelligence operations are a growing US concern, and this book is a critical first step in addressing the problem.

CPT Richard E. Coon, USA, US
Military Academy, West Point, New York

PEACEKEEPER: The Road to Sarajevo by Major General Lewis MacKenzie. 546 pages. HarperCollins, Toronto, Canada. 1993. \$7.95.

Canadians have served in every peacekeeping mission since the 1956 Suez Canal Crisis, and Major General Lewis MacKenzie has been on most. He has had the career most military officers long for. He served with the Middle East UN Emergency Force in 1963; in Cyprus in 1965, 1971 and 1978; again in the Middle East in 1973; with the International Commission of Control and Supervision in Vietnam, also in 1973; and with the UN Observer Group in Central America in 1990 and 1991.

MacKenzie details his personal missions, giving unvarnished descriptions of UN successes and failures. This same honest spirit at whatever cost is what got MacKenzie in trouble during his final, most influential assignment as UN Protection Force (UNPROFOR) chief of staff in the

former Yugoslavia. MacKenzie's day-by-day narrative follows from his landing in Belgrade, 8 March 1992, through his return to the UN in New York, 8 August. These five months were critical to everything that has happened since in the former Yugoslavia, and in the last three years, MacKenzie has made or argued against most decisions shaping the war.

Quickly overstepping his authority as UNPROFOR chief of staff, MacKenzie attempted to broker cease-fires and involved himself in prisoner exchanges and negotiations to break the cycle of violence. His humanitarian efforts and negotiations attracted great hostility in Sarajevo after his forces opened the airport. He was forced to depart early when death threats against him and his soldiers became unbearable.

MacKenzie retired soon after, returning to Canada where he vehemently spoke out against the UN's inability to support its troops in the former Yugoslavia. His most infamous quote is, "If you are a commander of a UN mission, don't get in trouble after 5 p.m. or on the weekend; there is no one in the UN to answer the phone!" His anger at UN administration failures is exceeded only by his disgust with the warring factions. MacKenzie presents convincing evidence all sides killed their own people and blamed the violations on other factions.

MacKenzie's last two chapters, "Whither UN Peacekeeping?" and "A Message to America," are the most thoughtful and best-informed words I have seen on the debacle in the former Yugoslavia. MacKenzie strongly opposes sending peacekeeping forces into civil wars not yet fought to a political solution. He persuasively argues there will be no peace in Yugoslavia until the underlying political disputes are resolved. MacKenzie convincingly says the United States should not contribute ground troops to peacekeeping efforts because of the disproportionate media attention killing US soldiers draws. The United States should restrict itself to logistic and strategic-lift efforts.

Peacekeeper is a great book, compelling, enjoyable and important. Every US officer and national security decision maker should read this book.

It will be tragic if US forces must relearn all the lessons MacKenzie sweated through during his distinguished UN peacekeeping career.

CPT John A. Nagl, USA, 1st Cavalry Squadron, 1st Cavalry Regiment, 1st Armored Division, Bidingen, Germany

SPECIAL OPERATIONS FORCES:

An Assessment by John M. Collins. 189 pages. National Defense University Press, Washington, DC. (Available from the Superintendent of Documents, US Government Printing Office, Washington, DC.) 1994. \$7.50.

If you seek daring, breathtaking Green Berets tales, this book is not for you. It has precious little action other than the bureaucratic sort. If, however, you are interested in the US special operations community's general condition, *Special Operations Forces* (SOF) might be perfect.

John M. Collins, a congressional research staffer with an extensive military background, was commissioned by the Senate Armed Services Committee to study "the capabilities and contributions" of the SOF. He had the benefit of extensive SOF community cooperation from the highest through the lowest levels. *Special Operations Forces* is the expanded, illustrated version of his study.

The reader will find a succinct, thorough overview of today's SOF establishment and a brief history detailing its rapid structural evolution over the last decade. Collins describes SOF planning, programming, budgeting and policy infrastructures and procedures and provides a good summary of the relationships among the various players inside and outside the SOF community.

The SOF community has made enormous strides since the mid-1980s. It now has its own assistant secretary of defense and nonterritorial combatant commander and has seen a significant influx of quality personnel and equipment.

Problems still exist. As the option of choice for many nontraditional military deployments in today's postmodern world, SOF are often overcommitted. Some are in danger of burnout. One prime example is the military's only remaining active duty psychological operations battalion, which seems perpetually deployed in part or in total. Collins emphasizes a perennial

problem plaguing the SOF community—the mistrust, and sometimes ill will, harbored by many in the conventional military establishment. While progress has been made, a SOF assignment can still be a career stopper. But Collins does not focus exclusively on problems. He suggests many comprehensive solutions, categorized according to the echelon or command level that should be responsible for accomplishing the fix.

Although it still reads somewhat like a government policy paper, what *Special Operations Forces* lacks in excitement, it more than makes up for with its lucid, valuable perspective. Anyone seeking to understand the SOF community should read this book.

MAJ Paul H. Smith, USA, Intelligence Division, Deputy Chief of Staff for Operations, Fort Leslie J. McNair, Washington, D.C.

A DRAGON LIVES FOREVER:

War and Rice in Vietnam's Mekong Delta, 1969–1991 and Beyond, by Thomas R. Hargrove. 472 pages. Ivy Books, New York. 1994. \$5.99 paperback.

A Dragon Lives Forever is an important complement to the available US Vietnam literature because it covers an aspect of US involvement rarely addressed—the Civil Operations and Revolutionary Development Support (CORDS) program. As a US Army lieutenant, Thomas R. Hargrove was part of the CORDS team in the delta region's Choung Thien Province during his 1969–1970 year tour. Because of his educational background, Hargrove, an infantry officer, spent his year as the province agricultural adviser wearing civilian clothes while redistributing small land tracts from absentee landlords to resident farmers in the CORDS' "Land to the Tiller" program. Later, he briefly re-visited Vietnam and the Choung Thien Province as an International Rice Research Institute scientist in 1972, 1988 and 1990. This book covers his experiences and perceptions during his tour and subsequent visits.

Hargrove's major contribution is in describing the CORDS operation and

US efforts at nationbuilding at the "grass-roots," or perhaps "rice paddy," level. CORDS came into being in May 1967 throughout South Vietnam and continued during the US presence. Hargrove describes his efforts, as part of a Vietnamese team, to improve the local economy and quality of life by helping farmers help themselves. His descriptions of US civilians in the CORDS program are realistic rather than stereotypical. He also covers his interactions with the Vietnamese, both officials and private citizens, and his struggles with cultural differences.

There are other pertinent observations within *A Dragon Lives Forever*. Hargrove's remarks on the People's Self-Defense Force portray a program rarely addressed by other authors. His comments on the local *Phuong Hoang* (Phoenix) program contradict some popular myths associated with that activity, and his accounts of Mobile Advisory Team (MAT) operations reveal the rarely described work of MAT lieutenants and noncommissioned officers with small indigenous territorial force elements under very difficult and often hazardous conditions.

Within Hargrove's book are important ideas for today's military professional. The United States is increasingly involved in other countries' internal problems, which requires peacekeeping, civil affairs and nationbuilding activities. The US military is realistically the only agency that can react quickly, in force and with organized, trained (often through civilian-acquired skills) and disciplined personnel to provide native population assistance in alien cultures. The CORDS experience, described by Hargrove, provides procedures and techniques useful to military professionals and civilians involved with other nations' internal issues.

COL Griffin N. Dodge, USA, Retired, Santa Fe, New Mexico

THE CIVIL WAR IN NICARAGUA:

Inside the Sandinistas by Roger Miranda and William Ratliff. 308 pages. Rutgers University Press, New Brunswick, NJ. 1993. \$32.95.

Roger Miranda was the Sandinista Defense Ministry Secretariat chief and senior staff aide to the Sandinista defense minister, Commandante Hum-



berto Ortega, from 1982 to 1987. William Ratliff is a senior research fellow at the Hoover Institute, Stanford University, and author of many studies on Marxist-Leninist revolutionary efforts in Central America and the Caribbean. Miranda's inside knowledge as a participant combines with Ratliff's meticulous interviews of key regional and extra-regional actors to produce an authoritative analysis.

Miranda and Ratliff develop their conclusions in six topically organized chapters. Their first conclusion is that the 1979 Nicaraguan revolution was long overdue and broadly supported. It was pluralistic in participation, but the Sandinistas had Cuban cadres and Soviet weapons, giving them the means to seize control during the final stages.

They also believe the Sandinistas created a sophomoric, hyperbolized political rhetoric that accomplished little for Nicaragua but received rave reviews among journalists, film actors, academicians and religious figures in the United States and Western Europe. The nine commandants who directed the 11-year Sandinista rule plundered the country for self-gain more efficiently than the corrupt Somoza dynasty they replaced.

The authors believe the Sandinista revolution's hero is the humble Nicaraguan worker or peasant who still believes in pluralistic democracy and who still supports the floundering but democratically elected Chamorro government. The Soviet officials working in the Sandinistas' Nicaragua considered the country to be of secondary importance. Cuban military cadres and propaganda operatives were, however, vital to the regime. The Sandinistas sold drugs with official Cuban assistance.

Miranda does not engage in the mea culpas so often done by Soviet and Cuban defectors. The authors frequently drub US liberal and conservative views alike on this emotional topic. Their "Conclusions" chapter provides a humanitarian regional blueprint by which to heal scars, develop the economy and strengthen democracy.

This book is especially good if read comparatively with any of these: David Nolan, *The Ideology of the Sandinistas and the Nicaraguan Revolution*; Russell W. Ramsey, *Wiping the*

Frost from the Windows; Shirley Christian, *Revolution in the Family*; Joshua Muravchik, *New Coverage of the Sandinista Revolution*; and Stephen Kinzer, *Blood of Brothers: Life and War in Nicaragua*.

Russell W. Ramsey, *US School of the Americas, Fort Benning, Georgia*

TRIAL BY FIRE: The 1972 Easter Offensive, America's Last Vietnam Battle by Dale Andrade. 600 pages. Hippocrene Books, Inc., New York. 1995. \$24.95.

Most large Vietnam War texts focus on events through 1968. Dale Andrade's book about the Vietnam War in 1972 is a refreshing counterbalance to this phenomenon. This highly readable work systematically walks us through the heavy, climactic battles sweeping across South Vietnam in that halcyon year.



Andrade first recaps the war up to 1972. The United States had turned against the war. The US Army sent to fight had mostly been withdrawn under cover of the 7th Air Force and US Navy units. As the year began, only nominal US combat units were left. On the ground at least, it would be the Army of the Republic of Vietnam's (ARVN's) fight to stop the North Vietnamese offensive. Several hundred US advisers were still assigned to fight alongside, though many were advisers in name only, mostly junior in rank to the Vietnamese they advised and with nowhere near their advisees' combat experience. They were really conduits of US materiel and firepower to their assigned ARVN units. They performed this role superbly because US air and sea power materiel and might were still available in abundance. Andrade shows the raw bravery of most as they stood with their ARVN counterparts through the worst battles and describes how some paid with their lives.

The first 1972 Easter Offensive battle began 30 March when several National Peoples Army (NVA) divisions attacked defending ARVN units just south of the demilitarized zone separating the two Vietnams. Several days later there was another equally ferocious multidivisional combined

arms attack in the country's center. The third prong of the NVA country-wide offensive was another multidivisional attack in III Corps, just north of Saigon. Ostensibly aimed at Saigon, it riveted South Vietnamese and US attention. Leaders of both countries worried all summer and into the fall as the ARVN bent, regrouped, counterattacked, broke, reattacked and finally held in the three critical, hard-fought battles. The South Vietnamese units saved their country.

Surprisingly for a book focused on the ground battles, Andrade highlights nicely the critical US air power role in breaking the NVA onslaught. He describes how B-52s and tactical fighters rained destruction on the exposed NVA units. He shows how US C-130s braved incredible NVA antiaircraft fire while resupplying the cut-off ARVN units at An Loc.

Most interesting is the vignette series inserted throughout based on NVA soldier interviews and captured papers. The series tells the battle from their side—the hard passage down the Ho Chi Minh Trail, the horror of US air strikes, the travail of battle, the hunger and thirst and the wounded's cries. The NVA soldiers' war was also terrible, and Andrade's story of it is long overdue.

The Easter Offensive battles were the United States' last. The offensive was repulsed in the end by the South Vietnamese ARVN who held the ground. Two and a half years later, the ARVN was tested again. Unfortunately, this time US materiel and air power support was not available. The ARVN was defeated and South Vietnam was destroyed. *Trial by Fire* shows that the ending might have been different had we persisted. This is an extensively researched and well-written work on an important Vietnam War period.

COL Darrel D. Whitcomb, USAFR,
Fairfax, Virginia

SOVIET-CUBAN ALLIANCE, 1959-1991, by Yuri Pavlov. 272 pages. Transaction Publishers, New Brunswick, NJ. 1994. \$18.95 paperback.

Yuri Pavlov was a career Latin American specialist for the Soviet Foreign Ministry. He interpreted for Premier Nikita S. Khrushchev during the 1962 Cuban Missile Crisis. In 1982, he became the Soviet ambassador to

Costa Rica, and in 1987, he became the foreign ministry's Latin American directorate head responsible for Soviet-Cuban bilateral relations. He now combines his personal expertise as a Soviet Foreign Service veteran officer with the extensive holdings of the University of Miami's North-South Center to research and explain the stormy Soviet-Cuban alliance history and heritage and today's Russian-Cuban relations.

This is a book for the insider, who can now compare his knowledge with solid Western sources and draw more balanced conclusions. There are important revelations in this book. For example, during the Cuban Missile Crisis, the Soviet Union and United States were possibly closer to nuclear exchange than originally thought. Besides the 72 intermediate-range and medium-range ballistic missiles, the Soviet ground

commander in Cuba, Colonel General Issa Pliyev, had two regiments of nuclear-tipped tactical missiles at his disposal. Had the United States invaded Cuba or attacked the main missile sites, Pliyev had permission to launch the missiles against US forces. The USS *Enterprise's* carrier battle group was easily in range.

Further, Fidel Castro repeatedly begged and demanded the Soviet Union to launch a first-strike strategic nuclear attack on the United States if US forces attacked or invaded Cuba. Not only did Khrushchev have to deal with a hostile President John F. Kennedy, but also with a bellicose ally that seemed to welcome nuclear war as a shortcut to building communism.

After the missile crisis, Soviet-Cuban relations were strained and expensive. The Soviet Union annually pumped billions of dollars in

technology and resources into the Cuban economy. During the 1980s, more than 25 percent of the Cuban gross national product came from the Soviet Union. The more money and goods the Soviets pumped into Cuba, the less control they seemed to have over Castro's policies. Although Cuban troops often served as Soviet proxies, Castro dragged the Soviets further than they wanted to go in such places as Angola, Grenada, El Salvador and Nicaragua. Finally, when the Soviet Union collapsed, Russia and Cuba came to a new, and not too friendly, relationship.

Overall, this book provides the military professional and the student of recent foreign relations an insider's view of a troubled alliance's history. With the Cold War's passing, the Soviet Union, and now Russia, no longer need or can afford Cuba's dependent relationship. The alliance

PASS IN REVIEW

THE LAWS OF WAR: Constraints on Warfare in the Western World.

Edited by Michael Howard, George J. Andreopoulos and Mark R. Shulman. 303 pages. Yale University Press, New Haven, CT. 1995. \$30.00.

Today's soldiers will find Michael Howard's foreword admirably addresses the many issues of who is included under the laws of war. Howard discusses the laws of warfare evolution from classical Greek times, through the age of chivalry and the Napoleonic wars, to current military operations. This book will give cause for reflection and provide a new perspective.—MAJ Alexander A. Cox, *USA, School of Advanced Military Studies, USACGSC*

CROMMELIN'S THUNDERBIRDS: Air Group 12 Strikes the Heart of Japan by Roy W. Bruce and Charles R. Leonard. 228 pages. Naval Institute Press, Annapolis, MD. 1994. \$26.95.

This book details US Navy Carrier Air Group 12 in its final World War II Pacific operations. Air Group 12 was an experimental unit in which combat veterans were deployed with recent flight-school graduates. It first saw action in February 1945. The authors, retired naval officers, provide insider views of fighter sweeps over Japan, air support at Iwo Jima and Okinawa and the efforts against Kamikaze attacks. *Crommelin's Thunderbirds* is exciting and jam-packed with personal accounts.—LCDR John O'Donnell, *USN, USS Thach*

FIREPOWER IN LIMITED WAR, revised edition, by Robert H. Scales Jr. 336 pages. Presidio Press, Novato, CA. 1995. \$22.95.

Major General Robert H. Scales Jr. adds a Gulf War chapter to this new edition, which still covers artillery, close air support and helicopter use in the French Indochina War, the Vietnam War, the Soviet-Afghanistan intervention and the British Falkland Island Campaign. He describes the devastating effect of the multiple launch rocket system, smart munitions, Apache helicopter and A-10 Warthog on Iraqi artillery, armor and supply lines. His analysis of fire support's critical battlefield role is excellent.—LTC Peter S. Kindsvatter, *USA, Retired, Horsham, Pennsylvania*

INTERAGENCY COOPERATION: A Regional Model for Overseas Operations by William W. Mendel and David G. Bradford. 99 pages. National Defense University Press, Washington, DC. (Available from the Superintendent of Documents, US Government Printing Office, Washington, DC.) 1995. \$4.00.

Despite the title's implied promise, *Interagency Cooperation* fails to show how the US Southern Command (USSOUTHCOM) model can be used to obtain interagency cooperation. Instead, it describes USSOUTHCOM's planning approach and regional overseas operations model. The book offers a lengthy, fragmented argument on the need for and difficulty of obtaining interagency cooperation but concludes only that "making this happen often becomes problematic" without offering suggestions for how to achieve such cooperation.—LTC Thomas Adams, *USA, Department of Joint and Combined Operations, USACGSC*

is politically embarrassing and financially ruinous. Pavlov provides a unique eyewitness account of the entire process.

LTC Lester W. Grau, USA, Retired,
Foreign Military Studies Office,
Fort Leavenworth, Kansas

PRISONERS OF HOPE: Exploiting the POW/MIA Myth in America by Susan Katz Keating. 276 pages. Random House, Inc., New York. 1994. \$23.00.

INSIDE HANOI'S SECRET ARCHIVES: Solving the MIA Mystery by Malcolm McConnell. 462 pages. Simon & Schuster, Inc., New York. 1995. \$25.00.

This year marks the 20th anniversary of South Vietnam's collapse. As the last helicopters left the Saigon Embassy, questions arose: Were Americans left behind? Were all prisoners of war (POWs) released two years earlier? These questions continue to haunt Americans today.

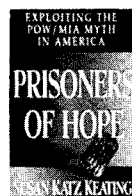
When there seems no likelihood a US serviceman is still held, yet another report surfaces that a middle-aged American has been seen. This revived hope is the fodder for POW and MIA (missing-in-action) activists. Some sincerely believe Americans are still being held. Others simply prey on the families' hope. The real "prisoners of hope" are not the MIAs but their families.

Military superiors and fellow servicemen often left room for optimism when reporting the circumstances surrounding servicemen's disappearances, which created false hope. The government's later attempts to close cases became suspect. Therefore, some cases were left open even when there was virtually no possibility or proba-

bility the subject was alive.

As time passed, there were rumored sightings, theories of how some could have avoided capture and stories of French soldiers who were held for years before release. These suppositions look like facts in an aura of hope. The government annually spends \$100 million chasing these rumors, evidence to many of official doubt. The government is in a "lose-lose" situation. If its efforts cease, Americans may be abandoned. If its efforts continue, Americans must be held there. This is fertile ground for exploitation.

Author Susan Katz Keating forcefully condemns the exploiters who vie for the fame, attention or money to be made from selling hope. A thriving Southeast Asia cottage industry is devoted to POW artifact "discovery" and marketing. One example is the photograph of three missing



ULTRA IN THE PACIFIC: How Breaking Japanese Codes & Ciphers Affected Naval Operations Against Japan, 1941-1945, by John Winton. 247 pages. Naval Institute Press, Annapolis, MD. 1993. \$22.95.

Ultra in the Pacific is an excellent overview of Allied World War II radio intelligence efforts in the Pacific and Indian oceans. Author John Winton describes code breaking, direction finding, traffic analysis and plain-language messages. *Ultra* is the best single volume on how radio intelligence and cryptology related to operational employment against the Japanese.—LCDR John O'Donnell, USN, USS Thach

CHINA'S FAR WEST: Four Decades of Change by A. Doak Barnett. 688 pages. Westview Press, Boulder, CO. 1994. \$24.95 paperback.

This book is more than a journal of A. Doak Barnett's return to China's western and southern provinces. The author's vivid accounts and analyses make this a valuable resource. Barnett believes Beijing's pragmatic transition to a market economy is far more likely to succeed than Moscow's. The Chinese strategy includes strict party control, thereby assuring political stability during the transition; regional priorities from the coast inland; army depolitization; minority accommodation; and gradual party separation from the government.—COL John W. Messer, USAR, Retired, Ludington, Michigan

THE HOUSE OF PURPLE HEARTS: Stories of Vietnam Vets Who Find Their Way Back by Paul Solotaroff. 204 pages. HarperCollins Publishers, New York. 1995. \$22.00.

The best news in *The House of Purple Hearts* is that the New England Shelter for Homeless Veterans is doing excellent work rehabilitating and returning to society many struggling and poorly coping Vietnam veterans. Dedicated veterans labored to make the shelter a reality. The methods they used and their success should be copied throughout America to restore those veterans considered "stateside MIAs." This book provides hope that more veterans' psychological injuries will be addressed and their lives improved.—LTC Gale S. Pollock, USA, Walter Reed Army Medical Center, Washington, D.C.

WITNESS TO WAR: Korea by Rod Paschall. 212 pages. Berkley Publishing Group, New York. 1995. \$12.00 paperback.

Witness to War is an excellent primer on the Korean "police action" as seen through the eyes of the participants. Although oriented on small-unit ground forces fighting North Korean and Chinese forces, it also provides strategic, operational, joint and combined insights. Rod Paschall simplifies the complicated geopolitical setting and chronologically recounts the give-and-take of this defining US encounter with a "limited" war, one that has lasted more than 40 years.—LTC Joseph G. D. Babb, USA, Retired, Department of Joint and Combined Operations, USACGSC

"American" servicemen that mysteriously surfaced in 1991. It was a 1923 *Soviet Life* magazine photo. Even after the photo's exposure as a fraud, some still maintained it was authentic.

Keating writes an informative, readable account of the myths and myth exploiters. Every American wants to see the MIAs found and returned to their homeland. This simply will not happen. Hope must give way to reality. This book leads the way.

"Bring 'em home!" is the mantra of prisoner of war (POW) and missing-in-action (MIA) activists who believe Americans are still held in Southeast Asia. They contend the US government knows it and refuses to bring them home. Those who stubbornly cling to this myth will not like *Inside Hanoi's Secret Archives*.



Malcolm McConnell, a former Foreign Service officer and *Reader's Digest* editor, is the author. Theodore Schweitzer, a former UN Refugee Commission employee, is the researcher. This is an understatement as this is Schweitzer's story of how he gained access to Vietnamese military archives, what he found and what he did with the information.

When the possibility of Schweitzer's access to the archives was first raised in Washington, D.C., there was reluctance to subsidize the project—maybe Schweitzer was just another irrational activist. Finally, he was given a government contract, assigned the codename *Swamp Ranger* and funded for equipment to record the archival information. Under the guise of researching a book, Schweitzer was welcomed into the archives. Once inside, he recorded the official records of Americans captured during the Vietnam War. He saw photographs of bodies, military identification cards and personal effects. He discovered the fate of many MIAs. As a result, some MIA cases are now closed.

While Schweitzer appeared as a well-intentioned do-gooder, his Vietnamese hosts suspected he was working for the government. They continued to grant him file access because they knew there could be no normal-

ization of relations until POW and MIA questions were resolved. Revealing Vietnam's wartime actions might lead to war crime charges. Granting access to a private citizen, ostensibly an author, was a way to release information and save face.

Inside Hanoi's Secret Archives reads more like a spy novel than a serious nonfiction work—a tribute to the author's skills. It is thoroughly documented, includes a comprehensive index and newly released photographs. The book's subtitle, *Solving the MIA Mystery*, is only partially accurate. All the POW and MIA riddles are not yet solved. Some may never be. Through Schweitzer's efforts, the process has leaped ahead dramatically.

LTC H. Wayne Elliott, USA, Retired,
Charlottesville, Virginia

VOICES FROM CAPTIVITY by Robert C. Doyle. 370 pages. University Press of Kansas, Lawrence, KS. 1994. \$35.00.

In *Voices From Captivity*, Robert C. Doyle analyzes US captivity narratives from the 17th-century North America "forest wars" through the 20th-century Cold War conflicts. Doyle believes these narratives share a common event-scenario structure: transformation and initiation; removes and death marches; the prison landscape; resistance and torture; assimilation and renegades; escape; and release or repatriation. The reader can compare a prisoner-of-war (POW) experience facet over four centuries.

Doyle begins with a fine exposition on the evolving POW status and developing conventions governing POW and internee treatment. He ends with a thoughtful missing-in-action examination and the impact of modern era captivity narratives. The book is well indexed and has an extensive bibliography and superb appendixes on captured soldiers, prison camp locations and prisoner mortality.

Voices From Captivity is an interesting combination of historical and literary scholarship. Its partitioning of the POW experience simplifies analysis and invites more study. The book's many insights will prepare soldiers for combat in an era characterized by US POW abuse and exploitation.

LTC Neil M. Franklin, USAR, 3385th
USARF School, Montgomery, Alabama

PARACHUTE INFANTRY: An American Paratrooper's Memoir of D-Day and the Fall of the Third Reich by David Kenyon Webster. 262 pages. Louisiana State University Press, Baton Rouge, LA. 1994. \$29.95.

Volumes have been written about why men fight. Why does a soldier deliberately put himself in harm's way, combatting sheer terror, to gain an objective? In his own way, David Kenyon Webster answers this question.

Webster was a 21-year-old Harvard University English literature major when he volunteered for the parachute infantry. He wanted to experience war as closely as possible, capturing it as a writer. Webster's trained eye for detail and richly phrased and candid battle scene reporting convey emotions never forgotten by the combat-experienced. Paratroopers will recognize the sense of disorientation, the knot in the stomach and the feeling of relief upon landing. All combat veterans will relive the feelings of utter terror and helplessness.

Parachute Infantry begins with Webster's jump into Normandy as a private. He complains of the unofficial command policy not to wear the wool-knit helmet caps as briefed by his regimental commander just before loading for the combat jump. He talks of his 100-pound load and the hour-long flight to the drop zone. He describes the emotional high of a temporary reprieve when the initial drop is postponed. Recalling the only member of his platoon to die, T-4 Stoney, he says, "That is how wars are finally fought and won, not by rich factories and the coddled air force, but by the infantry, who take the ground and kill the enemy, and the infantry is made up of Stoneys."

Jumping into Holland later, Webster hopes for a wound that will take him away from the US Army, his platoon leader and immediate combat. It comes a few days later—"A 200-pound man swung a baseball bat and drove a spike clean through my leg. They got me! I cried. What a cliché, I thought as I lay on the ground." Although he has the opportunity to avoid combat, Webster feels he has to go back, even knowing he will probably be wounded again or killed. He does not go for his country, the 101st Airborne Division or his regiment, but

for his fellow paratroopers.

Unfortunately, *Parachute Infantry*'s last chapters revolve around the war's end and occupation duty and are filled with a private's complaints about noncommissioned officers, officers and the Army; tales of the lack of discipline; and reaffirmation of why he never rose above the rank of private first class. Few sources, however, so richly describe the airborne experience at the private's level. Webster vividly portrays the sensations of cohesion and loyalty between men who fight and die for each other.

LTC Bruce A. Brant, USA, Army
War College, Carlisle Barracks,
Pennsylvania

THE FIRST TEAM AND THE GUADALCANAL CAMPAIGN: Naval Fighter Combat from August to November 1942 by John B. Lundstrom. 626 pages. The Naval Institute Press, Annapolis, MD. 1994. \$44.95.

One cannot imagine a more thoroughly researched book on any subject than *The First Team and the Guadalcanal Campaign* by John B. Lundstrom. The author spent 10 years studying the topic, interviewing over 150 American and Japanese veterans and their families. The result is a book that stands as the ultimate authority on the Guadalcanal Campaign, its battles, tactics, men and machines.

Lundstrom so painstakingly recreates the Guadalcanal air battles that no prior knowledge of naval aviation or the Guadalcanal Campaign is required. One will learn the names of the pilots of specific battles; become familiar with the aircraft types used, including their tactics, weapons, strengths and weaknesses; and acquire engagement results. The reader will also discern the challenges to World War II carrier operations and the costs in men and machines to both sides.

US aircraft were, for the most part, inferior to the Japanese Zeros. Only US fighter doctrine and tactics enabled a major victory. Naval fighters learned to rely on deflection shooting and team tactics. The les-

sons learned at Guadalcanal allowed dramatic US improvements to be made that paid great dividends throughout the rest of the Pacific Campaign. The Navy learned to integrate the maneuvers of several carriers and the hundreds of aircraft launched. The organization and timing advances gained there became the future invasion plan prototype. One can see the growth and maturation of carrier aviation in the pages of this book.

While the technical information woven into the text is sometimes tedious, overall, the book is interesting and extremely informative. The courage and costs involved in the air campaign for Guadalcanal are evident. Anyone wishing to understand the tactics and capabilities of carrier-based aviation should consider *The First Team and the Guadalcanal Campaign* essential reading.

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A WORLD AT ARMS: A Global History of World War II by Gerhard L. Weinberg. 1,125 pages. Cambridge University Press, New York. 1994. \$34.95 clothbound. \$20.00 paperback.

Many books offer a comprehensive view of the world's most colossal military struggle—World War II. Martin Gilbert's *The Second World War: A Complete History* (1989) and John Keegan's *The Second World War* (1990) are both good efforts. However, the former suffers from a confusing mass of detail related in a strict, almost day-by-day chronology, while the latter is diminished by its Anglocentric operational judgments. Gerhard L. Weinberg's *A World at Arms* succeeds where others fail and will, in all likelihood, remain the standard one-volume, English-language account for years to come.

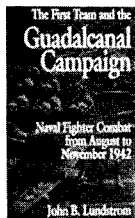
Weinberg is a University of North Carolina history professor. He served on Columbia University's war documentation project, directed the American Historical Association's microfilming of captured German records and wrote a two-volume study of Adolf Hitler's foreign policy. He is uniquely equipped to write this book, which is clearly

the culmination of years of study. His book is both chronologically and topically organized, with 12 of its 16 chapters devoted to the war's coming and its major events. The remaining four chapters analyze the war at sea, life on the "home front," changes in technology and operational methods and diplomatic tensions between the Allied and Axis powers. As expected, Weinberg's major focus is on the politico-strategic connection. There is, however, sufficient operational detail to show how campaigns were driven by strategy dictates and how campaign outcomes shaped strategic choices.

Weinberg's thesis is that the National Socialist Party policy of obtaining living space in Eastern Europe and the Soviet Union for a racially pure German people gave the war its essential dynamic. This was true not only in Europe, where the Soviet-German conflict was the war's central reality after June 1941, but also in Asia, where Japan pursued its drive for economic hegemony with its northwestern flank protected and its Pacific adversaries distracted by fighting the Germans.

Despite major disconnects in Axis strategy, Weinberg's argument stands. The most glaring disconnects are the Soviet-Japanese neutrality treaty that allowed the Soviets to transfer multiple divisions from the Far East to Moscow in winter 1941 and the Americans to make lend-lease shipments to Vladivostok in Soviet-flagged liberty ships. Weinberg clearly documents both. Without a German invasion of the Soviet Union, there might have been two separate wars, but they would not have unified the world at arms.

It is precisely Weinberg's connections between the war effects in one geographic sphere on those in another sphere that make this such a valuable book. For example, Weinberg lucidly documents the connections between Hitler's July 1940 decision to invade the Soviet Union in 1941 and Germany's diplomacy with Japan, Finland, Romania, Hungary and Italy in the months leading to Operation *Barbarossa*. He also points out how the Japanese decision to pour resources into the fight for Guadalcanal in 1942 prevented them from attacking in force into the



Hitler's decision to defend Courland as the Soviet forces streamed westward in 1944 is explained as Germany's need for eastern Baltic access to train crews for the new U-boat generation built to reinterdict vital sea routes between America and Europe. The US bomber offensive is credited with delaying this program and the V-2 production schedules long enough to deny Germany the port and launch site access required to make these weapons effective. These shrewd insights are matched by comprehensive treatment, exhaustive research and engaging expression.

There are a few minor weaknesses in scholarship. For example, judgments about the US and British amphibious landing at Anzio, Italy, in January 1944, would have profited from considering Carlo D'Este's treatment of that operation in *Fatal Decision*. The analysis of the Allied failure to close the Falaise pocket in Normandy scolds General Sir Bernard L. Montgomery without examining Lieutenant General Omar N. Bradley's equally culpable role. Weinberg's criticism of German generals for condoning, if not abetting, the murder of Eastern European and Soviet civilians and for glossing over these actions in their memoirs is

clearly justified. However, his criticism of them for accepting secret financial remuneration from the National Socialist regime seems unnecessarily repetitive. And, although a good-faith effort has been made to provide supporting maps, it is impossible to make sense of the operational detail without reference to a standard military atlas.

These, however, are minor blemishes on a magnificent work. If you are going to read any single volume on World War II, make it Weinberg's *A World at Arms*.

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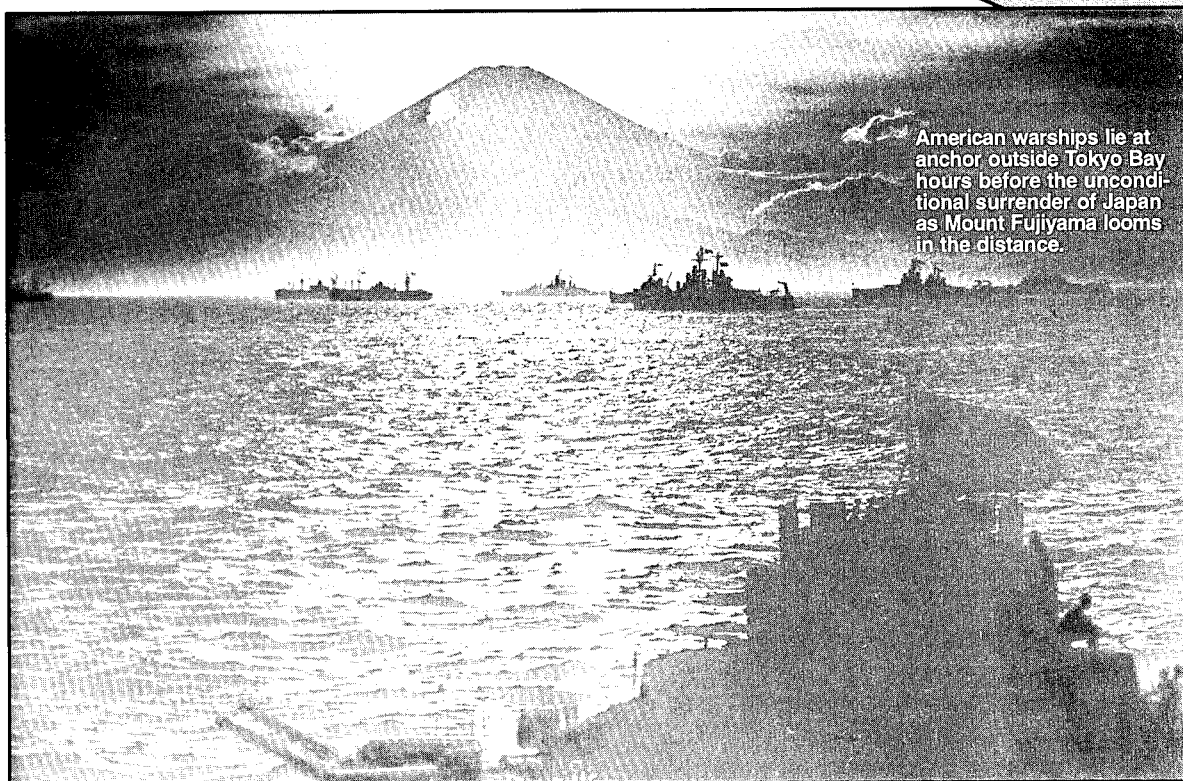
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American warships lie at anchor outside Tokyo Bay hours before the unconditional surrender of Japan as Mount Fuji looms in the distance.

America Honors its World War II Veterans

"World War II holds lessons for all time," President Bill Clinton said on 2 September 1995 at Hawaii's National Memorial Cemetery of the Pacific, where more than 33,000 World War II soldiers, who served in the Pacific, are buried. The "forces of darkness give no quarter; they must be confronted and defeated," Clinton said. "The blessings of freedom are never easy or free. They must always be defended."

About 8,500 people, including several US and foreign dignitaries and 80 veterans groups, attended the ceremony commemorating the 50th anniversary of the war's end and honoring those who fell in battle.

Clinton called World War II the most destructive conflict in history. "World War II lasted 2,194 days," he said. "It stretched from Pearl Harbor to St. Petersburg [Russia], from the beaches of Normandy to the shores of Iwo Jima. It destroyed whole cities; it ravaged countryside; it cost the lives of 55 million people—soldiers killed in battle, civilians and prisoners felled by disease and starvation, children buried in the rubble of bombed buildings, millions wiped out in the gas chambers."

"On 7 December 1941, when Japan attacked Pearl Harbor, the United States had a standing army of less than 200,000 men," Clinton pointed out. "Seventeen countries had larger armies. . . . At that time, things looked pretty bleak for the United States, and a lot of people doubted that our democracy was up to the job. But our enemies sold short the strength and will of the American people. Most of them did not know a lot about each other and even less about the world beyond our borders. But they had a core of shared traits . . . determination, optimism, an unshakable dedication to freedom and a faith that right would prevail. . . . President [Franklin D.] Roosevelt called them the 'incalculable force of American democracy, a free people united by a common purpose.'"

"At home, Americans built planes, ships, tanks and trucks. They planted victory gardens, collected scrap metal, bought war bonds, rationed gas and learned to do with less in every part of their lives so those in uniform could conduct the war," Clinton said. "And abroad, in the rain-drenched jungles and on rocky ridges, under the seas, over the waves, in the clouds—Americans fought on the front lines of fear. Tens of thousands lost their lives, leaving their loved ones with only memories."

According to Clinton, WW II sparked social change in America. From Pearl Harbor to V-J Day, millions of American women worked on assembly lines and 300,000 wore uniforms—driving trucks, training troops and nursing the wounded. "After the war," he said, "America would begin to integrate this extraordinary force into the economy and into our nation's military and change the face of America forever. Thousands of African Americans served as Tuskegee Airmen, Sherman tank drivers and Navy Seabees. Slowly, after the war, America would begin to act on a truth so long denied—that if people of different races could serve as brothers abroad in uniform, they could surely live as neighbors at home."

World War II "was a time when people cared for each other and sacrificed for others, when our nation stood united in purpose and mighty in spirit as never before," Clinton said. "It was a time when Americans forged the strength of their diversity into a community for victory and progress. Today's Americans owe it to the World War II generation to guard their dreams, to stand up against those who sow the seeds of war and to prepare for the challenges of a new century," Clinton said. "Remembering the lessons of World War II and maintaining the spirit of the time will help the nation succeed."

—Linda D. Kozaryn, American Forces Information Service



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